REFERENCES

Abe, F., Chen, RF. and Yamauchi, T. 1991. Iridals from *Belamcanda chinensis* and *Iris japonica*. Phytochemistry 30: 3379-3382.

Abe, F., Donnelly, M.X., Moretti, C. and Polonsky, J. 1985. Isoflavonoid constituents from *Dalbergia monetaria*. Phytochemistry 24: 1071-1076.

Adinarayana, D. and Rao, J.R. 1975. Isoflavonoids of *Dalbergia paniculata*. Indian J. Chem. 13: 425-426.

Adinarayana, D., Radhakrishniah, M. and Rao, J.R. 1971. Dalpanol, a new 6'-hydroxyrotenoid from a *Dalbergia* species. J. Chem. Soc. 1C: 29.32.

Agarwal, V.K., Thappa, R.K., Agarwal. S.G., Mehra, M.S. and Dhar, K.L. 1984. Isoflavones of two *Iris* species. Phytochemistry 23: 2703-2704.

Agrawal, P.K., Bansal, M.C., Porter, L.J. and Foo Y.L. 1989. Flavonoids. In Agrawal, P.K., Carbon-13 NMR of flavonoids, 142-196. New York: Elservier Science.

Aiyar, V.N., Narayanan, V., Seshadri, T.R. and Vydeeswaran, S. 1973. Chemical components of some Indian medicinal plants. Indian. J. Chem. 11: 89-90.

Ali, A.A., El-Emary, N.A., El-Moghazi, M.A., Darwish, F.M. and Frahm, A.W. 1983. Three isoflavonoids from *Iris germanica*. Phytochemistry 22: 2061-2063.

Anhut, S., et al. 1984. The first identification of isoflavones from a bryophyte. Phytochemistry 23: 1073-1075.

Anjaneyulu, A.S.R., Raghava Reddy, A.V. and Reddy, D.S.K. 1984. Pacharin, a new dibenzo-(2,3-6,7)-oxepin derivative from *Bauhinia racemosa*. Lamx. Tetrahedron 40: 4245-4252.

Arisawa, M. and Morita, N. 1976. Studies on constituents of genus *Iris* VII, the constituents of *Iris unguicularis* Poir (1). Chem. Pharm. Bull. 24: 815-817.

Arisawa, M., Morita, N., Kondo, Y. and Takemoto, T. 1973. Studies on constituents of *Iris* genus plants IV, the constituents of *Iris florentina* L. (2). Chem. Pharm. Bull. 21: 2323-2328.

Arnold, H.J. and Gulumian, M. 1984. Pharmacoperia of traditional medicine in Venda. J. Ethanopharmacol. 12: 35-74.

Aswal, B.S., Bhakuni, D.S., Goel, A.K., Kar, K., Mehrotra, B.N. and Mukherjee, K.C. 1984. Screening of Indian plants for biological activity part X. Indian J. Exp. Biol. 22: 312-332.

Atta-Ur-Rahman, et al. 2002. Isoflavonoid glycosides from the rhizomes of *Iris germanica*. Chem. Pharm. Bull. 50: 1100-1102.

Barragan-Huerta, B.E., Peralta-Cruz, J., Gonzalez-Laredo, R.F. and Karchesy, J. 2004. Neocandenatone, an isoflavan-cinnamylphenol quinone methide pigment from *Dalbergia congestiflora*. Phytochemistry 65: 925-928.

Barrett, B. 1994. Medicinal plants of Nicaragua's atlantic coast. Econ. Bot. 48: 8-20.

Bekker, M., Malan, E., Steenkamp, J.A. and Brandt, E.V. 2002. An isoflavanoid neoflavonoid and an o-methylated isoflarone from the heartwood of *Dalbergia nitidula*. Phytochemistry 59: 415–418.

Beldjoudi, N., Mambu, L., Labaied, M. and Grellier, P. 2003. Flavonoids from *Dalbergia louvelii* and their antiplasmodial activity. J. Nat. Prod. 66: 1447-1450.

Bensky, D. and Gamble, A. 1993. Herbs that clear heat and relieve toxicity. In : Chinese herbal medicin materia medica revised edition, pp. 104. Seattle: Eastland Press.

Bezuidenhoudt, B.C.B., Brandt, E.V., Steenkamp, J.A., Boux, D.G. and Ferreira, D. 1988. Oligomeric isoflavonoids parts 1 structure and synthesis of the first (2,3′)-isoflavone-isoflavan dimmer. J.C.S. Perkin. Trans. I. 1988: 1227-1235.

Bhat, R.B. and Jacobs, T.V. 1995. Traditional herbal medicine in Transkei. J. Ethnopharmacol. 48: 7-12.

Bhatt, P. and Dayal, R. 1992. Stipulin, a prenylated chalcone from *Dalbergia stipulacea*. Phytochemistry 31: 719-721.

Bhattarai, N.K. 1992. Folk use of plants in veterinary medicine in central Napal. Fitoterapia 63: 497-506.

Bidlack, W.R., Omay, S.T., Meskin, M.S. and Topham, D.K.W. 2000. Phytochemicals as bioactive agents Techomic Publishing.

Biswas, K.M., Ali, M.E. and Haque, M.E. 1977. Isolation of chrysocriol 7-*O*-beta-D-glucopyrano-sidyl (2-1)-D-apiofuranoside from the leaves of *Dalbergia volubilis*. Indian J. Chem. 15B: 396-397.

Boily, Y. and Puyvelde, L. 1986. Screening of medicinal plants of Rwanda (central Africa) for antimicrobial activity. J. Ethanopharmacol. 16: 1-13.

Boland, G.M. and Donnelly, D.M.X. 1998. Isoflavonoids and related compounds. Nat. Prod. Rep. 15: 241-260.

Boonyaprapassorn, N., et al. 2000. Samunpai Maipeanban (Domestic medicinal plants) PartsIV. Bangkok: Prachanchon press.

Borai, P. and Dayal, R. 1993. A flavone glycoside from *Dalbergia stipulacea* leaves. Phytochemistry 33: 731-732.

Brandt, E.V., Bezuidendoudt, B.C.B. and Boux, D.G. 1982. Direct synthesis of the

Brown, P.M., Thomson, R.H., Hausen, B.M. and Simatupang, M.H. 1974. Naturally Occuring Quinones, XXIV. Extractive from *Bowdichia nitida* Benth: the first isoflavone quinine. Liebigs Ann. Chem. 1974: 1295-1300.

Brzozo, A.M. *el al.* 1997. Molecular basis of agonism and antagonism in the oestrogen receptor. Nature 389: 753-758.

Carlson, R.E. and Dolphin, D.H. 1982. *Pisum sativum* stress metabolites: two cinnamylphenols and a 2'-methoxychalcone. Phytochemistry 21: 1733-1736.

Chan, S.C., Chang, Y.S. and Kuo, S.C. 1997. Neoflavonoids from *Dalbergia Odorifera.* Phytochemictry 46: 947-949.

Chang, L.C., Gerhauser, C., Song, L., Farnsworth, N.R., Pezzuto, J.M. and Kinghorn, A.D. 1997. Activity-guided isolation of constituents of *Tephrosia purpurea* with the potential to induce the phase II enzyme, quinine reductase. J. Nat. Prod. 60: 869-873.

Chang, S. 1977. Dictionary of Chinese crude drugs Shanghai: Shanghai Scientific Technologic Publisher.

Charles, E., Tuttle, C.O., Rutland, Vermont, U.S.A. and Keys, J.D. 1976. Chinese herbs, botany, chemistry and pharmacodynamics USA.

Chawla, H.M. and Chibber, S.S. 1977. Occurrence of 7-hydroxy-4-methylcoumarin in *Dalbergia volubilis.* Indian J. Chem. 15B: 492-493.

Chawla, H.M. and Mittal, R.S. 1983. Volubolin, a 4-phenyl-2H-1-benzopyran-2-one from *Dalbergia volubilis.* Phytochemistry 22: 2625-2626.

Chawla, H.M. and Mittal, R.S. 1987. Structure of a new rotenolone from *Dalbergia volubilis* twigs. J. Chem. Res (S)1987 5: 168-169.

Chawla, H.M., Chibber, S.S. and Seshadri, T.R. 1974. Volubilin, a new isoflavone-*C*-glycoside from *Dalbergia volubilis* flowers. Phytochemistry 13: 2301-2304.

Chawla, H.M., Chibber, S.S. and Seshadri, T.R. 1975. Isovolubilin, a new isoflavone -*C*-rhamnoside from *Dalbergia volubilis* flowers. Indian J. Chem. 13: 444-446.

Chawla, H.M., Chibber, S.S. and Seshadri, T.R. 1976. Volubilinin, a new isoflavone-*C*-glucoside from *Dalbergia volubilis* flowers. Phytochemistry 15: 235-237.

Chawla, H.M., Johny, C.J. and Mittal, R.S. 1989. New phenolic components from *Dalbergia volubilis*. Bull. Soc. Chim. Fr. 1: 82-87.

Chawla, H.M., Mittal, R.S. and Rastogi, D.K. 1984. Volubinol, a new 12a-hydroxyrotenoid from *Dalbergia volubilis*. Indain J. Chem. 23B: 680-681.

Chawla, H.M., Mittal, R.S. and Rastogi, D.K. 1984. Voludal, a new aldehydic compound from *Dalbergia volubilis*. Indian J. Chem. 23B: 175-176.

Chayamarit, K. 1998. Thai medicinal plants vol.6. Bangkok: The Forest Herbarium, Royal Forest Department.

Cheng, Z.J., Kuo, S.C., Chan, S.C., Ko, P.N. and Teng, C.M. 1992. Antioxidant properties of Butein isolated from *Dalbergia odorifera*. Biochim. Biophys. Acta. 1392 2/3: 291-299.

Chibber, S.S. and Khera, U. 1978. Dalbinol: a new 12a-hydroxyrotenoid from *Dalbergia latifolia* seed. Phytochemistry 17: 1442-1443.

Chibber, S.S. and Khera, U. 1979. Dalbin: a 12alpha-hydroxyrotenoid glycoside from *Dalbergia latifolia*. Phytochemistry 18: 188-189.

Chibber, S.S. and Sharma, R.P. 1978. Isolation of 6-hydroxy-2′,7-dimethoxy-4′,5′-methylenedioxyisoflavone from the pods of *Dalbergia assamica*. Curr. Sci. 47: 856.

Choudhary, M.I., et al. 2001. Four new flavones and a new isoflavone from *Iris bungei*. J. Nat. Prod. 64: 857-860.

Chuankhayan, P., Hua, Y., Svasti, J. Sakdarat, S., Sullivan, P.A. and Ketudat Cairns, J.R. 2005. Purification of an isoflavonoid 7-*O*-beta-apiosyl-glucoside beta-glycosidase and its substrates from *Dalbergia nigrescens* Kurz. Phytochemistry 66: 1880-1889.

Coe, F.G. and Anderson, G.J. 1996. Screening of medicinal plants used by the Garifuna of eastern Nicaragua for bioactive compounds. J. Ethanopharmacol. 53: 29-50.

Cook, J.T., Ollis,W.D., Sutherland, I.O. and Gottlieb, O.R. 1978. Isoflavonoid constituents of *Dalbergia* and *Machaerium* species part 5 pterocarpans from *Dalbergia struceana*. Phytochemistry 17: 1419-1422.

Cota, R.H.S., Grassi-Kassisse, D.M., Spadari-Bratfisch, R.C. and Souza-Brito, A.R.M. 1999. Anti-ulcerogenic mechanisms of a lyophyilized aqueous extract of *Dalbergia monetaria* L. in rat, mice and guinea-pigs. J. Pharm. Pharmacol. 51: 735-740.

Criodain, T.O., O'-Sullivan, M., Meegan, M.J. and Donnelly, D.M.X. 1981. Latinone, a phenanthrene-1,4-quinone from *Dalbergia latifolia*. Phytochemistry 20: 1089-1092.

Cui, J.M., Chung, H.S. and Woo, W.S. 1993. Determination of isoflavonoid glucosides in rhizomes of *Belamcanda chinensis* by high performance liquid chromatography. Korean J. Pharmacog 24: 309-312.

Czako, M. and Marton, L. 2001. A heartwood pigment in *Dalbergia* cell cultures. Phytochemistry 57: 1013-1022.

Das, S.K. 1955. Medicinal, economic and useful plants of India. West Bengal, India : Bally seed store.

Dasan, R.G., Hariramakrishnan, K., Neelakantan, S. and Raman, P.V. 1988. Dalspinosin-7-*O*-beta-D-glucopyranoside, a new isoflavone glucoside from the roots of *Dalbergia spinosa* roxb. Indian J. Chem. 27B: 693.

Dasan, R.G., Nagarajan, N.S., Narayanan, V., Neelakantan, S. and Raman, P.V. 1982. Dalspinin & dalspinosin, two new isoflavones from *Dalbergia spinosa* roots. Indian J. Chem. 21B: 385-386.

Dasan, R.G., Neelakantan, S. and Raman, P.V. 1985. Dalspinin-7-*O*-beta-D-galactopyranoside, a new isoflavone glycoside from roots of *Dalbergia spinosa* roxb. Indian J. Chem. 24B: 564.

Dayal, R. and Parthasarathy, M.R. 1977. Phenolic constituents of *Dalbergia sericea* leaves. Planta Med. 31: 245-248.

De Alencar, R., et al. 1974. Essential oils of Brazilian plants. An Acad. Brazil Cienc. 445: 312.

De Laszlo, H. and Henshaw, P.S. 1954. Plant materials used by primitive peoples to affect fertility. Science. 119: 626-631.

De Oliveira, A.B., Iracema, M., Madruga, L.M. and Gottlieb, O.R. 1978. Isoflavonoids from *Myroxylon balsamum*. Phytochemistry 17: 593-595.

De Rosa, S., De Giulio, A. and Tommonaro, G. 1996. Aliphatic and aromatic glycosides from the cell cultures of *Lycopersicon esculentum*. Phytochemistry 42: 1031-1034.

De Souza Guimaraes, I.S., Gottlieb, O.R., Souza Andrade, C.H. and Taveira Magalhaes, M. 1975. Chemistry of Brazilian leguminosae. Part 50. flavonoids from *Dalbergia cearensis*. Phytochemistry 14: 1452-1453.

Dewick, P.M. 1993. Isoflavonoids. In: Harbrone, J.B., The Flavonoids: Advances in research since 1986. London: Chapman & Hall., 117-238.

Dhar, K.L. and Kalla, A.K. 1973. A new isoflavone from *Iris germanica*. Phytochemistry 12: 734-735.

Dhingra, V.K., Seshadri, T.R. and Mukerjee, S.K. 1974. Isotectorigenin from the bark of *Dalbergia sissoo*. Indian J. Chem. 12: 1118.

Donnelly, B.J., Donnelly, D.M.X. and Sharkey, C.B. 1965. *Dalbergia* species-II isolation of (S)-dalbergione from *Dalbergia baroni* Baker. Phytochemistry 4: 337-340.

Donnelly, D.M.X. and Kavanagh, P.J. 1974. Isoflavanoids of *Dalbergia oliveri*. Phytochemistry 13: 2587-2591.

Donnelly, D.M.X. and Thompson, J.C. 1973. *Dalbergia* species part IX phytochemical examination of *Dalbergia stevensonii* Standl. J. Chem. Soc. Perkin Trans I. 1973: 1737-1745.

Donnelly, D.M.X., Keenan, P.J. and Prendergast, J.P. 1973. Isoflavonoids of *Dalbergia ecastophyllum*. Phytochemistry 12: 1157-1161.

Donnelly, D.M.X., Nangle, B.J., Prendergast, J.P. and O′ Sullivan, A.M. 1968. *Dalbergia* species 5 isolation of *R*-5-*O*-methyllatifolin from *Dalbergia cochinchinensis*,Pierre. Phytochemistry 7: 647-649.

Donnelly, D.M.X., O′ Criodain, T. and O′ Sullivan, M. 1981. New neoflavanoid structural-types from *Dalbergia*. J.C.S. Chem. Comm. 1981: 1254-1255.

Duke, J.A. 1994. Amazonian ethanobotanical dictionary. USA.

Duke, J.A. and Ayensu, E.S. 1985. Medicinal plants of China. Reference publications, Algonac, Michigen, USA.

Eddarir, S., Abdelhadi, Z. and Rolando, C. 2001. Fluorinated resveratrol and pterostillbene. Tetrahedron Lett. 42: 9127-9130.

Edmunds, J.S., Fairey, E.R. and Ramsdell, J.S. 1997. A rapid and sensitive high throughout report gene assay for estrogenic effects of environmental contaminants. Neurotoxicology 18: 525.

El-Feraly, F.S. and Hufford, C.D. 1982. Synthesis and carbon-13 nuclear magnetic resonance assignments of xenognosin. J.Org.Chem. 47: 1527-1530.

Eu, G.H., Woo, W.S., Chung, H.S. and Woo, E.H. 1991. Isoflavonoids of *Belamcanda chinensis* (II). Korean J.Pharmacog 22: 13-17.

Fang, Y. and Liu, G.T. 2002. Effect of isorhapontigenin on respiratory burst of rat neutrophils. Phytomedicine 9: 734-738.

Farag, S.F., Ahmed, A.S., Terashima, K., Takaya, Y. and Niwa, M. 2001. Isoflavonoid glycosides from *Dalbergia sissoo*. Phytochemistry 57: 1263-1268.

Farnsworth, N.R., Bingel, A.S., Cordell, G.A., Crane, F.A. and Fong, H.S. 1975. Potential value of plants as sources of new antifertility agents II. J.Pharm.Sci. 64: 717-754.

Ferreira, J.A., Nel, J.W., Brandt, E.V., Bezuidenhoudt, B.C.B. and Ferreira, D. 1995. Oligomeric isoflavanoids parts 3 daljanelins A-D the first pterocarpan and isoflavanoid-neoflavanoid-neoflavonoids analogues. J. Chem. Soc. Perkin Trans. I. 1995: 1049-1056.

Fioravanti, L., Cappelletti, V., Miodini, P., Ronchi, E., Brivio, M., and Fronzo, G.P. 1998. Genistein in the control of breast cancer cell growth insight into the mechanism of action in vitro. Cancer Lett. 130: 143-152.

first natural bi-isoflavonoid. Chem. Comm.1982 : 1409-1410.

Formiga, M.D., et al. 1975. Constituents of Brazilian leguminosae. Phytochemistry 14: 828-829.

Fukuyama, Y., Kiriyama, Y., Okino, J. and Kodama, M. 1993. Belamcandaquinones A and B, novel dimeric 1,4-benzoquinone derivatives possessing cyclooxygenase inhibitony activity. Tettrahedron Lett. 34: 7633-7636.

Fukuyama, Y., Okino, J. and Kodama, M. 1991. Structures of Belamcandols A and B isolated from the seed of *Belamcanda chinensis*. Chem. Pharm Bull. 39: 1877-1879.

Gaffield, W. 1970. Circular dichroism, optical rotatory dispersion and adsolute configuration of flavanones, 3-hydroxyflavanones and their glycosides. Tetrahedron 26: 4093-4108.

Gallo, R., Guarrera, M. and Hausen, B.M. 1996. Airborne contact dermatitis from the root of *Dalbergia saxatilis*. Contact Dermatitis 35: 60-61.

Goda, Y., Katayama, M., Ichikawa, K., and Shibuya, M. 1985. Inhibitors of prostaglandin biosynthesis from *Dalbergia odorifera*. Chem. Pharm. Bull. 33: 5606-5609.

Goda, Y., Katayama, M., Tanaka, M., Shibuya, M., Kiuchi, F. and Sankawa, U. 1987. Studies on biologically active compounds contained in Chinese medicinal plants used against the stagnation of disordered blood. J. Pharmacobio. Dyn. 10: 50.

Goda, Y., Kiuchi, F., Shibuya, M. and Sankawa, U. 1992. Inhibitors of prostaglandin biosynthesis from *Dalbergia odorifera*. Chem. Pharm. Bull. 40: 2452-2457.

Goncalues De Lima, O., Machado De Albuquerque, M. and Dalia Maia, M.H. 1959. Antimicrobial substances from higher plants XIV. Occurrence of antibiotics in Madeiras-De-Lei of Brazil. Rev. Inst. Antibiot. Univ. Fed. Pernambuco. Recife. 2: 19-51.

Gregson, M., Ollis, W.D., Redman, B.T., Sutherland, I.O., Dietrichs, H.H. and Gottlieb, O.R. 1978. Obtusastyrene and obstustyrene, cinnamylphenols from *Dalbergia retusa*. Phytochemistry 17: 1395-1400.

Gregson, M., Ollis, W.D., Sutherland, I.O. Gottlieb, O.R. and Magalhaes, M.T. 1978. Violastyrene and isoviolastyrene, cinnamylphenols from *Dalbergia miscolobium*. Phytochemistry 17: 1375-1377.

Guimaraes, I.S.D.S., Gottlieb, O.R., Andrade, C.H.S. and Magalhaes, M.T. 1975. Flavonoids from *Dalbergia cearensis*. Phytochemistry 14: 1452-1453.

Gundidza M. and Gaza, N. 1993. Antimicrobial activity of *Dalbergia melanoxylon* extracts. J. Ethanopharmacol. 40: 127-130.

Guo, J., Tian, Z., Lou, Z. and Bian, M.T. 1983. Identification of the chemical constituents of the volatile oil from the Chinese drug "jiang xiang", heartwood of *Dalbergia odorifera* T. Chen. Yaowu Fenxi Zashi 3: 4-6.

Hakamata, J., Hirayama, Y. and Itsukida, T. 1993. Antiandrogenic neoflavones from red sandalwood. Patent-Japan Kokai Tokyo Koho-05 194,204: 7.

Hakizamungu, E., Puyveld, L.V. and Wery, M. 1992. Screening of Rwandese medicinal plants for anti-trichomonas activity. J. Ethanopharmacol. 36: 143-146.

Hamberger, M.O., Cordell, G.A., Tantivatana, P. and Ruangrungsi N. 1987. Traditional medicinal plants of Thailand, VIII. Isoflavonoids of *Dalbergia candenatensis*. J. Nat. Prod. 50: 696-699.

Hamburger, M.O., Cordell, G.A., Rungrungsi, N. and Tantivatana, P. 1988. Candenatone, a novel purple pigment from *Dalbergia candenatensis*. J. Org. Chem. 53: 4161-4165.

Han, D.S., Lee, S.J. and Lee, H.K. 1984. Ethnobotanical survey in Korea. Proc. fifth asian symposium on medicinal plants and spices seoul korea, August 20-24, 1984, Korea.

Hanawa, F., Tahara , S. and Mizutani, J. 1991. Isoflavonoids produced by *Iris pseudacorus* leaves treated with cupric chloride. Phytochemistry 30: 157-163.

Harborne, J.B. 1994. The flavonoids : Advances in research since 1986. Chapman & Hall, UK.

Hedberg, I., Hedberg, O., Madati, P.J., Mashigeni, K.E., Mshiu, E.N. and Samuelsson, G. 1983. Inventory of plants used in traditional medicine in Tanzania part III plants of the families papilionaceae-vitaceae. J. Ethanopharmacol. 9: 237-260.

Hiermann, A. 1978. Flavonoids in the leaves of *Digitalis lanata* (Ehrhart)III. Planta Med. 34: 443-444.

Hirakura, K., *et al.* 1997. Phenolic glucosides from the root of *Pueraria lobata*. Phytochemistry 46: 921-928.

Hirschhorn, H.H. 1983. Botanical remedies of the former dutch east indies (Indonesia) I, Eumycetes, Pteridophyta, Gymnospermae, Angiospermae (Monocotylendones only). J. Ethanopharmacol. 7: 123-153.

Hu, X., Xu, Y., Huang, T. and Bai, Y. 1982. Isolation and identification of chemical constituents of She gan (*Belamcanda chinensis*). Chung Yao T'ung Pao. 7: 29-34.

Huang, D., Liu, Z.Y. and Wei, H. 1997. Determination of *Belamcanda chinensis* and *Iris tectorum* by RP-HPLC. Huaxi Yaoxue Zazhi 12: 115-116.

Hussein Ayoub, S.M. and Yankov, L.K. 1985. On the molluscidal activity of the plant phenolics. Fitoterapia 56: 225-226.

Ibrahim, A.S. 2000. Sulfation of naringenin by *Cunninghamella elegans*. Phytochemistry 53: 209-212.

Ingham, J.L. 1979. Isoflavonoid phytoalexins from leaflets of *Dalbergia* species. Z Naturforsch Ser. C 34: 630-631.

Ingram, D., Sanders, K., Kolybaba, M., and Lopez, D. 1997. Case-control study of phytoestrogens and breast cancer. Lancet 350: 990-994.

Institue of material medica. 1989. Medicinal plants in veitnam. Hanoi, Vietnam, (n.p.)

Ishimi, Y., et al. 2000. Difference in effective dosage of genistein on bone and uterus in ovariectomized mice. Biochem. Biophys. Res. Commun. 274: 697-701.

Ito, C., et al. 2003. Isoflavonoids from *Dalbergia olivari*. Phytochemistry 64: 1265-1268.

Ito, C., et al. 2003. New cinnamylphenols from *Dalbergia* species with cancer chemopreventive activity. J. Nat. Prod. 66: 1574-1577.

Ito, H., Onoue, S., Miyake, Y. and Yoshida T. 1999. Iridal-type triterpenoids with ichthyotoxic activity from *Belamcanda chinensis*. J. Nat. Prod. 62: 89-93.

Jain, A.C. and Nayyar, N.K. 1987. Synthesis of (±)-Sativanone & (±)-dihydrodaidzein. Indian J. Chem. 26B: 136-139.

Jain, L., Tripathi, M., Pandey, V.B. and Rucker, G. 1996. Flavonoids from *Eschscholtzia californica*. Phytochemistry 41: 661-662.

Jefferson, W.N. and Newbold, R.R. 2000. Potential endocrine-modulating effects of various phytoestrogens in the diet. Nutrition 16: 658-662.

Jha, H.C. and Zilliken, F. 1980. Carbon-13 chemical shift assignments of chromones and isoflavones. Can. J. Chem. 58: 1211-1219.

Ji, W.L., Qin, M.J. and Wang, Z.T. 2001. Studies on constituents of *Belamcanda chinensis*(I). Zhongguo Yike Daxue Xuebao 32: 197-199.

Joshi, M.C., Patel, M.B. and Mehta, P.J. 1980. Some folk medicines of Dangs, Gujarat state. Bull. Med. Ethanobot. Res. 1: 8-24.

Jun, M., Fu, H.Y., Hong, J., Wan, X., Yang, C.S. and Ho, C.T. 2003. comparison of antioxidant activities of isoflavones from kudzu root (*Pueraria lobata* Ohwi). JFS. 68: 2117-2122.

Jung, J.H. and Mclaughlin, J.L. 1990. ^{13}C-^{1}H NMR long-range coupling and deuterium isotope effects of flavanones. Phytochemistry 29: 1271-1275.

Jurd, L., Manners, G. and Stevens, K. 1972. Isolation and synthesis of (DL)-obtusafuran. Chem Commun. 1972: 992-993.

Jurd, L., Stevens, K. and Manners, G. 1972. Isoflavones of heartwood of *Dalbergia retusa*. Phytochemistry 11: 2535-2540.

Kachroo, K., Razdan, T.K., Qurishi, M.A., Khuroo, M.A., Koul, S. and Dhar, K.L. 1990. Two isoflavones from *Iris Kashmiriana*. Phytochemistry 29: 1014-1016.

Kahn, M.A. and Ahmad, Z. 1993. Ethnobotanical studies of certain rare medicinal plants of Bhopal. Fitoterapia 64: 516-517.

Kahn, S.S., Chaghtai, S.A. and Oommachan, M. 1982. Ethanobotanical studies of certain rare medicinal plants of Bhopal. J. Sci. Res. 4: 185-187.

Kamnaing, P., Free, S.N.Y.F., Nkengfack, A.E., Folefoc, G. and Fomum, Z.T. 1999. An isoflavan-quinone and a flavonol from *Millettia laurentii*. Phytochemistry 51: 829-832.

Karnick, C.R. and Hocking, G.M. 1975. Ethanobotanical records of drug plants described in valmiki ramayana and their uses in the ayurvedic system of medicine. Q.J. Crude Drug Res. 13: 143.

Kavimani, S., et al. 1997. Antiinflammatory activity of biochanin-A isolated from *Dalbergia sissoides*. Indian J. Heterocycl. Chem. 6: 235-236.

Kawaguchi, K., Alves, S.D.M., Watanabe, T., Kikuchi, S. and Satake, M. 1998. Colony stimulating factor-inducing activity of isoflavone-*C*-glucosides from the bark of *Dalbergia monetaria*. Planta Med. 64: 653-655.

Khan, I.A. et al. 2000. Antigiardial activity of isoflavones from *Dalbergia frutescens* Bark. J. Nat. Prod. 63: 1414-1416.

Khan, M.A., Khan, T. and Ahmad, Z. 1994. Barks used as source of medicine in Madhya Pradesh, India. Fitoterapia 65: 444-446.

Khera, U. and Chibber, S.S. 1978. Chemical constituents of *Dalbergia volubilis*: isolation of cearoin and (+)-medicarpin. Indian J. Chem. 16B: 78-79.

Khera, U. and Chibber, S.S. 1978. Isolation of 4'-*O*-gentiobioside & 4'-*O*-glucoside of 7-*O*-methyltectorigenin from *Dalbergia volubilis*. Indian J. Chem. 16B: 641-643.

Khera, U. and Chibber, S.S. 1978. Tectorigen-7-gentiobioside from *Dalbergia volubilis* stembark. Phytochemistry 17: 596.

Kim, Y.P., et al. 1999. Inhibition by tectorigenin and tectoridin of prostagtandin E_2 production and cyclooxygenase-2 induction in rat peritoneal macrophages. Biochimica. Et Biophysica. Acta 1438: 399-407.

Kinghorn, A.D., Balandrin, M.F. and Lin, L.J. 1982. Alkaloids of the papilionoideae part 1 alkaloid distribution in some species of the papilionaceous tribes sophoreae, dalbergieae, loteae, brongniartieae and bossiaceae. Phytochemistry 21: 2269-2275.

Kinjo, J., Furusawa, J., Baba, J., Takeshita, T., Yamasaki, M. and Nohara, T. 1987. Studies on the constituents of *Pueraria lobata*.III, isoflavonoids and related compounds in the roots and the voluble stems. Chem. Pharm. Bull. 35: 4846-4850.

Ko, H., Weng, J., Tsao, L., Yen, M., Wang, J. and Lin, C. 2004. Anti-inflammatory flavonoids and pterocarpanoid from *Crotalaria pallida* and *C. assamica*. Bioorg. Med. Chem. 14: 1011-1014.

Komoda, Y. 1989. Isolation of flavonoids from *Populus nigra* as Δ^4-3-ketosteroid (5α) reductase inhibitors. Chem. Pharm. Bull. 37: 3128-3130.

Kong, L.D., Zhang, Y., Pan, X., Tan, R.X. and Cheng, C.H.K. 2000. Inhibition of xanthine oxidase by liquiritigenin and isoliquiritigenin isolated from *Sinofranchetia chinensis*. Cell. Mol. Life Sci. 57: 500-505.

Kong, Y.C., et al. 1976. Potential anti-fertility plants from Chinese medicine. Amer. J. Chinese Med. 4: 105-128.

Kubitzki K. 1998. Flowering plants monocotyledon. In The families and genera of vascular plants vol.3. German: Springer.

Kurokawa, et al. 1993. Antiviral traditional medicines against herpes simplex virus (HSV-1), poliovirus and measles virus in vitro and their therapeutic efficacies for HSV-1 infection in mice. Antiviral Res. 22: 175-188.

Kurosawa K., Ollis, W.D., Redman, B.T. and Sutherland, I.O. 1968. The natural occurrence of isoflavans and an isoflavanquinone. Chem. Comm. 1968: 1263-1267.

Kurosawa, K., Ollis, W.D., Redman, B.T. Sutherland, I.O., Alves, H.M. and Gottlieb, O.R. 1978. Absolute configurations of isoflavans. Phytochemistry 17: 1423-1426.

Kurosawa, K., Ollis, W.D., Sutherland, I.O. and Gottlieb, O.R. 1978. Variabilin, a 6 alpha-hydroxypterocarpan from *Dalbergia variabilis*. Phytochemistry 17: 1417-1418.

Kurosawa, K., Ollis, W.D., Sutherland, I.O., Gottlieb, O.R. and De Oliveira, A.B. 1978. Mucronulatol, mucroquinone and mucronucarpan, isoflavonoids from *Machaerium mucronulatum* and *M. villosum*. Phytochemistry 17: 1405-1411.

Kuroyanagi, M., et al. 1996. Anti-androgen active constituents from *Dalbergia cochinchinensis* Pierre. Natural Med. 50: 408-412.

Larsen, P.O., Sundahl, M., Sorensen, F.T., Wieczorkowska, E., Goldblatt, P. 1987. Relationship between subfamilies, tribes and genera in Iridaceae inferred from chemical characters. Biochem. Syst. Ecol. 15: 575-579.

Lee, K.T. 2001. Tectorigenin, an isoflavone of *Pueraria thunbergiana* Benth., induces differentiation and apoptosis in human promyelocytic leukemia HL-60 cells. Biol. Pharm. Bull. 24: 1117-1121.

Lee, S., Ryo, J., Son, D., Kim, K.S., Lee, S.C. and Kim, B.K. 2004. Decursin From the rhizome of *Belamcanda Chinensis*. Nat. Prod. Sci. 10: 89-91.

Lee, S.O., Woo, W.S., Woo, E.H. and Kim, K.S. 1989. Isoflavonoids of *Belamcanda chinensis*. Korean J. Pharmacog 20: 219-222.

Leite de almeida, M.E. and Gottlieb, O.R. 1974. Iso-and neo-flavonoids from *Dalbergia inundata*. Phytochemistry 13: 751-752.

Letcher, R.M. and Shirley, I.M. 1976. Phenolic compounds from heartwood of *Dalbergia nitidula*. Phytochemistry 15: 353-354.

Lewis, W.H., Elvin-Lewis, M.P.F. 1977. Medical botany. Wiley-interscience, New York.

Li, et al. 2005. Isorhapontigenin, a new resveratrol analog, attenuates cardiac hypertrophy via blocking singnaling transduction pathways. Free Rad. Bio. Med. 38: 243-257.

Lin, M., Zhou, L.X., He, W.Y. and Cheng, G.F. 1998. A novel phenylpropanoid ester of sucrose from *Belamcanda chinensis*. J. Asian Nat. Prod. Res. 1: 67-75.

Liu, R.X., Li, L., Wang, Q., Wang, W., Bi, K.S. and Guo, D.A. 2005. Simultaneous determination of nine flavonoids in *Dalbergia odorifera* by LC. Chromatagraphia 61: 409-413.

Liu, R.X., Wang, Q., Guo, H.Z., Li, L., Bi, K.S. and Guo, D.A. 2005. Simulataneous determination of 10 major flavonoids in *Dalbergia odorifera* by high performance liquid chromatography. J. Pharm. Biomed. Anal. 39: 469-476.

Liu, X.H., Pan, J.H. and Wang, Y.X. 2000. Quantitative determination of mangiferin in rhizome *Belamcandae* and its substitute of *Iris* L. Zhongcaoyao 31: 739-740.

Lu, Y.R., Zhang, L.Z. and Shao, A.X. 1987. Quantitative analysis for the three main isoflavonoids in the Chinese drug shegan, by TLC/HPTLC densitometry. Yaowu Fenxi Zazhi 7: 275-279.

Ma, L., Song, Z.W. and Wu, F. 1996. Determination of five isoflavones in *Belamcanda chinensis* by RP-HPLC. Yao Hsueh Hsueh Pao 31: 945-949.

Mabberly, D.J. 1997. System for arrangement of seed plants. In : The plant book : A portable dictionary of the vascular plants 2nd ed. Great Britain: Cambridge University Press.

Macias, F.A., Simonet, A.M., Galindo J.C.G. and Castellano, D. 1999. Bioactive phenolics and polar compounds from *Melilotus messanensis*. Phytochemistry 50: 35-46.

Majumder, P.L. and Sen, R.C. 1991. Bulbophyllanthrone, a phenanthraquinone from *Bulbophyllum odoratissimum*. Phytochemistry 30: 2092-2094.

Manandhar, N.P. 1994. An ethanobotanical survey of herbal drugs of Kaski district, Napal. Fitoterapia 65: 7-13.

Manners, G.D., Jurd, L. and Stevens, K.L. 1974. Minor phenolic constituents of *Dalbergia retusa*. Phytochemistry 13: 292-293.

Manoj, C.N., Rao, R.P., Sethuraman, M.G., Nagarajan, N.S. and Kaliaperumal, M. 2003. Complete ^{13}C and ^{1}H NMR spectral assignments of two isoflavones from the roots of *Dalbergia horrida*. Mang. Reson. Chem. 41: 227-228.

Markham., K.R. 1982. Techniques of flavonoid identification- biological techniques series. London: Academic press.

Matos, F.J.A., Gottlieb, O.R. and Andrade, C.H.S. 1975. Chemistry of brazilian leguminasae part XLIX flavonoids from *Dalbergia ecastophyllum*. Phytochemistry 14: 825-826.

Matsuura, S., Tanaka, T., Iinuma, M., Tanaka, T. and Himuro, N. 1983. Constituents of useful plants IX. Constituents of *Arachis hypogaea* L. Yakugaku Zasshi 103: 997-1000.

Miller, D.K., Joshus, H. and Sadowski, S.J. 1987. Medicarpin and its derivatives and analogs as leukotriene inhibitors. Patent-US-4,704,400 : 4PP-.

Miller, D.K., Sadowski, S., Han, G.Q. and Joshua, H. 1989. Identification and isolation of medicarpin and a substituted benzofuran as potent leukotriene inhibitors in an anti-inflammatory Chinese herb. Prostaglandins leukotrienes essent fatty acids 38: 137-143.

Monteiro, A.M., Sandberg, G. and Crozier, A. 1987. Detection of abscisic acid, indole-3-acetic acid and indole-3-ethanol in seeds of *Dalbergia dolichopetala*. Phytochemistry 26: 327-328.

Morita N., Arisawa, M., Kondo, Y. and Takemoto, T. 1973. Studies on constituents of *Iris* genus plants III, the constituents of *Iris florentina* L. Chem. Pharm. Bull. 21: 600-603.

Morita, N., Shimokoriyama, M., Shimizu, M. and Arisawa, M. 1972. Studies on medicinal resources XXXIII. The components of rhizome of *Iris tectorum* Maximowicz (Iridaceae) 2. Yakugaka Zasshi 92: 1052-1054.

Morita, N., Shimokoriyama, M., Shimizu, M. and Arisawa, M. 1972. Studies on medicinal resources XXII. the components of rhizome of *Iris tectorum* Maximowiez (Iridanceae). Chem. Pharm. Bull. 20: 730-733.

Morito, K., et al. 2002. Interaction of phytoestrogens with estrogen receptors α and β (II). Biol. Pharm. Bull. 25: 48-52.

Msonthi, J.D. and Magombo, D. 1983. Medicinal herbs in Malawi and their uses. Hamdard 26: 94-100.

Muangnoicharoen, N. and Frahm, A.W. 1980. New grylbenzofurans and neoflanoids from the heartwood of *Dalbergia parviflora*.(abstrat) Abstr. 4th Asian Symp. Med. Plants Spices Bangkok Thailand September 15-19 1980: 163.

Muangnoicharoen, N. and Frahm, A.W. 1981. Arylbenzofurans from *Dalbergia parviflora*. Phytochemistry 20: 291-293.

Muangnoicharoen, N. and Frahm, A.W. 1982. Constituents of *Dalbergia parviflora* part 2 neoflavanoids of *Dalbergia parviflora*. Phytochemistry 21: 767-772.

Mueller, S.O. 2002. Overview of in vitro tools to assess the estrogenic and antiestrogenic activity of phytoestrogens. J. Chromatography B 77: 155-165.

Mukherjee, A. and Namhata, D. 1990. Some medicinal plants of Sundargarh district, Orissa. Int. J. Crude Drug Res. 28: 177-182.

Nagarajan, N.S., Rao, R.P., Manoj, C.N. and Sethurama, M.G. 2005. Piperidone derivative from *Dalbergia sympathetica*. Magn. Reson. Chem. 43: 264-265.

Nagarajan, N.S., Sethuraman, M.G., Manoj, C.N. and Rao, R.P. 2006. Dalsympathetin-a new isoflavone gentiobioside from *Dalbergia sympathetica*. Nat. Prod. Res. 20: 195-200.

Nagarajan, N.S., Srinivasin, V. and Karthikeyan,G. 1990. Phytochemical examination of *Dalbergia sissoides* pods. J. Res. Edu. Ind. Med. 9: 17-19.

Nakarajan, N.S. and Narayanan, V. 1988. Flavonoid constituents of *Dalbergia sissoides*. Fitoterapia 59: 430.

Narayanan, V. and Nagarajan, N.S. 1988. Two isoflavone galactosides from *Dalbergia spinosa*. Phytochemistry 27: 2364-2365.

Narayanan, V. and Seshadi, T.R. 1971. Paniculatin, a new isoflavone-di-*C*-glucoside of *Dalbergia paniculata* bark. Int. J. Cancer 9: 14-16.

Niyomdham, C. 2002. An account of *Dalbergia* (Leguminosae-Papilionoideae) in Thailand. Thai For. Bull. (Bot.) 30: 124-166.

Nunes, D.S., Haag, A. and Bestmann, H.J. 1989. Components from the stem bark of *Dalbergia monetaria* L. three new isoflavone *C*-glucosides. Liebigs Ann. Chem. 4: 331-335.

Nunes, D.S., Haag, A. and Bestmann, H.J. 1989. Two proanthocyanidins from the bark of *Dalbergia moneteria*. Phytochemistry 28: 2183-2186.

Nyazema, N.Z. 1984. Poisoning due to traditional remedies. Cent. Afr. J. Med. 30: 80-83.

Ogata, T., Yahara, S., Hisatsune, R., Konishi, R. and Nohara, T. 1990. Isoflavan and related compounds from *Dalbergia odorifera*. II. Chem. Pharm. Bull. 38: 2750-2755.

Oh, K.B., Kang, H.J. and Matsuoka, H. 2001. Detection of antifungal activity in *Belamcanda chinensis* by a single-cell bioassay method and isolation of its active compound, tectorigenin. Biosci. Biotech. Biochem. 65: 939-942.

Oliveira, A.B., Iracema, M., Madruga, L.M, and Gottlieb, O.R. 1978. Isoflavonoids from *Myroxylon balsamum*. Phytochemistry 17: 593-595.

Ollis, W.D. 1966. The neoflavanoids, a new class of natural products. Experientia 22: 777-856.

Osawa, K., Yasuda, H., Maruyama, T., Morita, H., Takeya, K. and Itokaw, H. 1992. Isoflavanones from the heartwood of *Swartzia polyphylla* and their antibacterial activity against cariogenic bacteria. Chem. Pharm. Bull. 40: 2970-2974.

Ostin, A., Monteiro, A.M., Crozier, A., Jensen, F. and Sandberg, G. 1992. Analysis of indole-3-acetic acid metabolites from *Dalbergia dolichopetala* by high performance liquid chromatography-mass spectrometry. Plant Physiol. 100: 63-68.

Pailer, M. and Franke, F. 1973. Uber Inhaltsstoffe der *Iris germanica* (Schwertlilie). Manatsh. Chem. 104: 1394-1408.

Park, H.J., et al. 1999. Isoflavone glycosides from the flowers of *Pueraria thunbergiana*. Phytochemistry 51: 147-151.

Park, J.D., Lee, Y.H., Beak, M.I., Kim, S.I. and Ann, B.Z. 1995. Isolation of antitumor agent from the hearwood of *Dalbergia odorifera*. Korean J. Pharmacog. 26: 323-326.

Parthasarathy, M.R., Seshadri, T.R. and Varma, R.S. 1976. New isoflavonoid glycosides from *Dalbergia paniculata*. Phytochemistry 15: 1025-1027.

Parthasarathy, M.R., Seshadri, T.R. and Varma, R.S. 1976. Triterpenoids and flavonoids of *Dalbergia sericea* bark. Phytochemstry 15: 226-227.

Parthasarathy, M.R., Sharma, P. and Kalidhar, S.B. 1980. Isocavuinin-7-*O*-glucoside, a new isoflavone glucoside from the bark of *Dalbergia paniculata*. Indian J. Chem. 19B: 429-430.

Pathak, V., et al. 1997. Antiandrogenic phenolic constituents from *Dalbergia cochinchinensis*. Phytochemistry 46: 1219-1223.

Pelter, A. and Ward, R.S. 1978. The carbon-13 nuclear magnetic resonance spectra of isoflavones. J.C.S. Perkin I : 666-668.

Phaetthanesuan, P. 1977. Pramuan Sapphakhun ya thai (Collection on the activities of Thai traditional drugs) parts 3. Sa makhom rongrien phaet phaen boran (association of traditional medical doctor), Wat Po, Bangkok, Thailand.

Picheansunthorn, C., Chawalit, M. and Jeerawong, W. 2001. Kumatibai Tumrapraosotpranarai (Explaination of King Narai's pharmacopoeia). Bangkok: Amarin printing and publishing.

Pike A.C.W. 1999. Structure of the ligand-binding domain of oestrogen receptor beta in the presence of a partial agonist and full antagonist. The EMBO Journal 18: 4608-4618.

Puyvelde V.L., Ntawukiliyayo, J.D., Portaels, F. and Hakizamungu, E. 1994. In vitro inhibition of mycobacteria by Rwandese medicinal plants. Phytother. Res. 8: 65-69.

Quisumbing, E. 1951. Medicinal plants of the Philippines. Manilla, Philippines: Dept. Agr. Nat. Resources.

Radhakrishniah, M. 1973. Isoflavonoids of *Dalbergia paniculata* seed. Phytochemistry 12: 3003-3004.

Radhakrishniah, M. 1979. Chemical constituents of *Dalbergia paniculata* roots. J. Indian Chem. Soc. 56: 81-83.

Rajachandraiah, P., Adinarayan, D. and Syamasundar, K.V. 1991. Chemical investigation of some Indian medicinal plants. Fitoterapia 62: 544-545.

Rajasekhara, R.J. and Ahamed, M.A. 1992. Phytochemical study of *Dalbergia paniculata* leaves. Fitoterapia 63: 187.

Rajulu, K.G. and Rao, J.R. 1980. Caviunin 7-*O*-rhamnoglucoside from *Dalbergia paniculata* root. Phytochemistry 19: 1563.

Ramachandraiah, P. 1991. Antimicrobial activity of *Dalbergia paniculata* seed oil. Fitoterapia 62: 281.

Ramachandraiah, P., Adinarayan, D. and Delle, M.F. 1992. Occurance of 6a, 12a-dehydroamorphigenin in *Dalbergia paniculata* seeds. Indian J. Chem.31B 7: 472.

Ramachandraiah, P., Adinarayan, D. and Syamasundar, K.U. 1991. Chemical investigation of some Indian medicinal plants. Fitoterapia 62: 544-545.

Ramakrishna, N.V.S., et al. 2001. Screening of natural products for new leads as inhibitors of beta-amyloid production: latifolin from *Dalbergia sissoo*. Indian J. Chem. 40B: 539-540.

Ramesh, P. and Yuvarajan, C.R. 1995. Coromandelin, a new isoflavone apioglucoside from the leaves of *Dalbergia coromandeliana*. J. Nat. Prod. 58: 1240-1241.

Ramesh, P. and Yuvarajan. C.R. 1995. Chemical examination of roots of *Dalbergia coromandeliana* Parin. Indian J. Heterocycl. Chem. 4: 315-316.

Rao, J.R. and Rao, R.S. 1991. Dalpaniculin, a *C*-glycosylisoflavone from *Dalbergia panicalata*. Phytochemistry 30: 715-716.

Ravi, P., Narayanan, V. and Raman, R.V. 1990. Constituents of *Dalbergia sisoides*. Fitoterapia. 61: 191.

Reynaud, J., Guilet, D., Terreux, R., Lussignol, M. and Walchshofer, W. 2005. Isoflavonoids in non-leguminous families: an update. Nat. Prod. Rep. 22: 504-515.

Rong, H., Stevens, J.F., Deinzer, M.L., Cooman, L.D. and Keukeleire, D.D. 1998. Identification of isoflavones in the roots of *Pueraria lobata*. Planta. Med. 64: 620-624.

Ryo, J., Son, D., Kim, K.S., Lec, S.C. and Kim B.K. 2004. Decursin from the rhizome of *Belamcanda chinensis*. Nat. Prod. Sci. 10: 89-91.

Safe, S., Conner, K., Ramamoorthy, K., Gaido, K., and Maness, S. 1997. Human exposure to endocrine-active chemicals: Hazard assessment problems. Regul. Toxicol. Pharmacol. 26: 52-58.

Saha, J.C. Savini, E.C. and Kasinathan, S. 1961. Ecbolic properties of Indian medicinal plants parts I. Int. J. Med. Res. 49: 130-151.

Saijo, R., Nakagawa, M. and Hirose, H. 1986. Benzopyrans exaction from *Dalbergia* for use as antihyperlipidermics. Patent-Japan Koki tokkyo Koho-61 215,385 : 5 pp.

Sakai, T., Kobashi, K., Tsunezuka, M., Hattori, M. and Namba, T. 1985. Studies on dental caries prevention by traditional Chinese medicines (part VI) on the fluoride contents in crude drugs. Shoyakugaku Zasshi 39: 165-169.

Sarg, T., Ateya, A.M., Anbdel-ghani, A., Badr, W. and Shems, G. 1999. Phytochemical and pharmacological studies of *Dalbergia sissoo*. Pharmaceutical Biol. 37: 54-62.

Schultz, K.H., Garbe, I., Hausen, B.M. and Simatupang, M.H. 1978. The sensitizing capacity of naturally occurring quinones experimental studies in quinea pigs. II benzoquinones. Arch. Dermatol. Res. 264: 275-286.

Schultz, K.H., Garbe, I., Hausen, B.M. and Simatupang, M.H. 1979. The sensitizing capacity of naturally occurring quinones experimental studies in guinea pigs II benzoquinones. Arch. Dermatol. Res. 264: 275-286.

Seidlova-wuttke, D., et al. 2004. *Belamcanda chinensis* and the thereof purified tectorigenin have selective estrogen receptor modulator activities. Phytomedicine 11: 392-403.

Seidlova-Wuttke, D., Heiden, L., Jarry, H., Christoffel, V., Spengler, B. and Wuttke, W. 2000. Die wirkung von *Belamcanda chinensis* abstammenden phytoostrogenen. J. Menopause. 2: 28-31.

Seki, K., Haga, K. and Kaneko, R. 1995. Belamcandones A-D, dioxotetrahydrodibenzofurans from *Belamcanda chinensis*. Phytochemistry 38: 703-709.

Sharma, A., Chibber, S.S. and Chawla, H.M. 1979. Caviunin 7-*O*-gentiobioside from *Dalbergia sissoo* pods. Phytochemistry 18: 1253.

Sharma, A., Chibber, S.S. and Chawla, H.M. 1979. Isocaviunin from mature pods of *Dalbegia sissoo*. Indian J. Chem. 18B: 472-473.

Sharma, A., Chibber, S.S. and Chawla, H.M. 1980. Isocaviudin, a new isoflavone glucoside isolated from *Dalbergia sissoo*. Indian J. Chem. 19B: 237-238.

Shawl, A.S. and Kumar, T. 1992. Isoflavonoids from *Iris crocea*. Phytochemistry 31: 1399-1401.

Shawl, A.S., Zeman, V.A. and Kalla, A.K. 1984. Isoflavones of *Iris spuria*. Phytochemistry 23: 2405-2406.

Shin, K.H., et al. 1999. Inhibition of prostaglandin E_2 production by the isoflavones tectorigenin and tectoridin isolated from the rhizomes of *Belamcanda chinensis*. Planta Med. 65: 776-777.

Shin, K.H., Kim, Y.P., Li, S.S., Lee, S., Ryu, N., Yamada, M. and Ohuchi, K. 1999. Inhibition of prostaglandin E-2 production by the isoflavones tectorigenin and

tectoridin isolated from the rhizomes of *Belamcanda chinensis*. Planta med. 65: 776-777.

Shirota, O., Pathak, V., Sekita, S., Satake, M. and Nagashima, Y. 2003. Phenolic constituents from *Dalbergia cochinchinrnsis*. J. Nat. Prod. 66: 1128-1131.

Singh, K.K. and Maheshwari, J.K. 1994. Traditional phytotherapy of some medicinal plants used by the tharus of the Nainital district, Uttar Pradesh, India. Int. J. Pharmacog. 32: 51-58.

Singh, K.K. and Maheshwari, J.K. 1994. Traditional phytotherapy of some medicinal plants used by the tharus of the Nainital district, Uttar Pradesh, India. Int. J. Pharmacog. 32: 51-58.

Singh, M.P., Malla, S.B., Rajbhandari, S.B. and Manandhar, A. 1979. Medicinal plants of Nepal-retrospects and prospects. Econ. Bot. 33: 185-198.

Singh, S. and Agrawal, S.S. 1990. Bronchorelaxant activity of *Belamcamda chinensis* (Adans). Indian J. Pharmac. 22: 107-109.

Singh, V.K., Ali, Z.A. and Siddioui, M.K. 1996. Ethanomedicines in the Bahraich district of Uttar Pradesh. Fitoterapia 67: 65-76.

Smith, B.E.C. and Swain, T. 1953. The isolation of 2,4,4′-trihydroxychalcone from yellow varieties of *Dahlia variabilis*. J. Chem. Soc. 2185-2187.

Smitinand, T. 1983. Mai me kha tang saitakit kong Thai (Valuable economic plants in Thailand) part III. Bangkok: The Forest Herbarium, Royal Forest Department.

Smitinand, T. 2001. Thai plan names (botanical names-vernacular names) revised edition. pp. 73. Bangkok: The Forest Herbarium, Royal Forest Department.

Soto, A.M., Sonnenschein, C, Chung, K.L., Fernandez, M.F., Olea, N. and Serrano, F.O. 1995. The E-SCREEN assay as a tool to identify estrogens: an update on estrogenic environmental pollutants. Environ. Health. Perspect. 103: 113-122.

Sripathi, S.K., Grandhidasan, R., Raman, P.V. and Krishnasamy, N.R. 1994. First occurrence of a xanthone and isolation of a 6-ketodehydrorotenoid from *Dalbergia sissoides*. Phytochemistry 37: 911-912.

Suffness, M., Abbott, B., Statz, D.W., Wonilowicz, E. and Spjut, R. 1988. The utility of P388 luckemia compared to B16 melanoma and colon carcinoma 38 for in vivo screening of plant extracts. Phytother. Res. 2: 89-97.

Svasti, J., Srisomsap, C., Techasakul, S. and Surarit, R. 1999. Dalcochinin-8′-O-beta-D-glucoside and its beta-glucosidase enzyme from *Dalbergia cochinchinensis*. Phytochemistry 50: 739-743.

Takahashi, K., Hoshino, Y., Suzuki, S., Hano, Y. and Nomura, T. 2000. Iridals from *Iris Tectorum* and *Belamcanda chinensis*. Phytochemistry 53: 925-929.

Takahashi, K., Ishino, M., Hoshino, Y., Tokumaru, Y. and Suzuki, S. 1993. Study of iridaceae plants with the capability to induce differentiation of HL-60 promyelocytic leukemia cells. Yakugaku Zasshi. 113: 647-654.

Takahashi, K., Suzuki, S., Hano, Y. and Nomura, T. 2002. Protein kinase C activation by iridal type triterpenoids. Biol. Pharm. Bull. 25: 432-436.

Tanaka, T., Ohyama, M., Iinuma, M., Shirataki. Y., Komatsu, M. and Burandt, C. 1998. Isoflavonoids from *Sophora secundiflora*, *S. arizonica* and *S. gypsophila*. Phytochemistry 48: 1187-1193.

Tiwari, V.J. and Padhye, M.D. 1993. Ethanobotanical study of goud tribe of Chandrapur and Gadchiroli districts of Maharashtra state, India. Fitoterapia 64: 58-61.

Turner, R.D. 1976. Search for a "weak link" Proc. Workshop Biodetector Trop. Woods Chem. Basis. Nat. Resist. 1976: 31-40.

Uchendu, C.N. and Leek, B.F. 1999. Uterine muscle contractant from the root of *Dalbergia saxatilis*. Experientia 70: 50-53.

Van Heerden, F.R., Brandt, E.V. and Roux, D.G. 1978. Structure and synthesis of some complex pyranoisoflavonoids from the bark of *Dalbergia nitidula*. J.C.S. Perkin Trans. I 1987: 137-139.

Van Heerden, F.R., Brandt, E.V. and Roux, D.G. 1980. Synthesis of the pyranoisoflavonoid, heminitidulan isoflavonoid and rotenoid glycosides from the bark of *Dalbergia nitidula* Welw.ex bark. J.C.S. Perkin trans. I 1980: 2463-2469.

Vanangamudi, A., Gandhidasan, R. and Raman, P.V. 1998. Constituents of *Dalbergia malabarica*. Fitoterapia 69: 180.

Wang, Q.L., Lin, M. and Liu,G.T. 2001. Antioxidative activity of natural isorhapontigenin. Jpn. J. Pharmacol. 87: 61-66.

Wang, W., Zhu, Q.X., Huang, M.H. and Cheng, D.L. 2000. A new compound from *Dalbergia odorifera* T. Chen. Chin. Chem. Lett. 11: 993-994.

Wange, C., Prasain, J.K. and Barnes, S. 2002. Reviews of the methods used in the determination of phytoestrogens. J Chromtog. B. 777: 3-28.

Winkel-Shirley, B. 2001. Flavonoid biosynthesis, a colorful model for genetics, biochemistry, cell biology, and biotechnology. Plant. Physio. 126: 485-493.

Wollenweber, E., Stevens, J.F., Klimo, K., Knauft, J., Frank, N. and Gerhauser, C. 2003. Cancer chemopreventive *in vitro* activities of isoflavones isolated from *Iris germanica*. Planta Med. 69: 15-20.

Wong F.K. 2002. Medicinal plants of southeast asia, 2nd ed. Malaysia: Prentice Hall.

Woo, W.S. and Woo, E.H. 1993. An isoflavone noririsflorentin from *Belamcanda chinensis*. Phytochemistry 33: 939-940.

Woo, W.S., Lee, E.B., Shin, K.H., Kang, S.S. and Chi, H.J. 1981. A review of research on plants for fertility regulation in Korea. Korean J. Pharmacog. 12: 153-170.

Wu, A.H., Ziegler, R.G. and Horn-Ross, P.L. 1996. Tofu and risk of breast cancer. Cancer Epidemiol. Biomarkers. Prev. 5: 901-906.

Wu, Y.X. and Xu, L.X. 1992. Analysis of isoflavones in *Belamcanda chinensis* (L.) DC. and *Iris Lectorum* Maxim by squarewavevoltammetry. Yao Hsueh Hsueh Pao 27: 64-68.

Wuttke, W. Jarry, H., Christoffel, V., Spengler, B. and Popp, M. 1999. Utilization of extracts from *Iris* plant, *Cimicifuga racemosa*, and tectorigenin as estrogen-like organ-selective medicaments without uterotropic effects. Patent-PCT INT APPL.-99. 47,149: 27.

Yadava, R.N. and Roy, A. 2000. A novel flavone glycoside from the stems of *Dalbergia sympathetica*. Asian J. Chem. 12: 1057-1060.

Yahara, S., Emura, S., Feng, H. and Nohara, T. 1989. Studies on the constituents of the bark of *Dalbergia hupeana*. Chem. Pharm. Bull. 37: 2136-2138.

Yahara, S., *et al.* 1985. Novel bi- isoflavonoids from *Dalbergia odorifera*. Chem. Pharm. Bull. 33: 5130-15133.

Yahara, S., *et al.* 1989. Isoflavan and related compounds from *Delbergia odorifera*.I. Chem. Pharm. Bull. 37: 979-987.

Yamaki, M., Kato, T., Kashihara, M. and Takagi, S. 1990. Isoflavones of *Belamcanda chinensis*. Planta Med 56: 335.

Yenesew, A., Midiwo, J.O., Heydenreich, M. and Peter, M.G. 1998. Four isoflavones from the stem bark of *Erythrina sacleu* XII. Phytochemistry 49: 247-249.

You, K.M., Jong, H.G. and Kim, H.P. 1999. Inhibition of cyclooxygenase/lipoxygenase from human platelets by polyhydroxylated/ methoxylated flavonoids isolated from medicinal plants. Arch. Pharm. Res. 22: 18-24.

Yu, Y.G., Wang, C.H., Liu, D. and Gao, W. 1983. Studies on the constituents of the neutral lipophilic fraction in the rhizome of *Belamcanda chinensis* (L.) DC. Yao Hsueh Hsueh Pao 18: 969-972.

Yu-tang, Z. 1985. Iridaceae. *In* : Pei Chien & Ting Chih-tsun, eds., Fl. Reipubl. Popularis Sin. 16(1): 120-198.

Zhang, C.Z., Wang, S.X., Zhang, Y., Chen, J.P. and Liang, X.M. 2005. In vitro estrogenic activities of Chinese medicinal plants traditionally used for the management of menopausal symptom. J. Ethnopharmacol. 98: 295-300.

Zhang, P.C., Wu, Y. and Yu, D.G. 2003. Chemical constituents from the leaves of *Dalbergia hainanensis*. Zhongguo Zhong Yao Za Zhi. 28: 527-530.

Zhou, L.X. and Lin, M. 2000. A New stilbene dimmer-shegansu B from *Belamcanda chinensis*. J. Asian Nat. Prod. Res. 2: 169-175.

Zhou, L.X., Lin, M. and He, L.F. 1996. Studies on chemical constituents of the roots of black berrylily (*Belamcanda chinensis*). Chung TS'ao Yao 27: 8-10.

APPENDIX

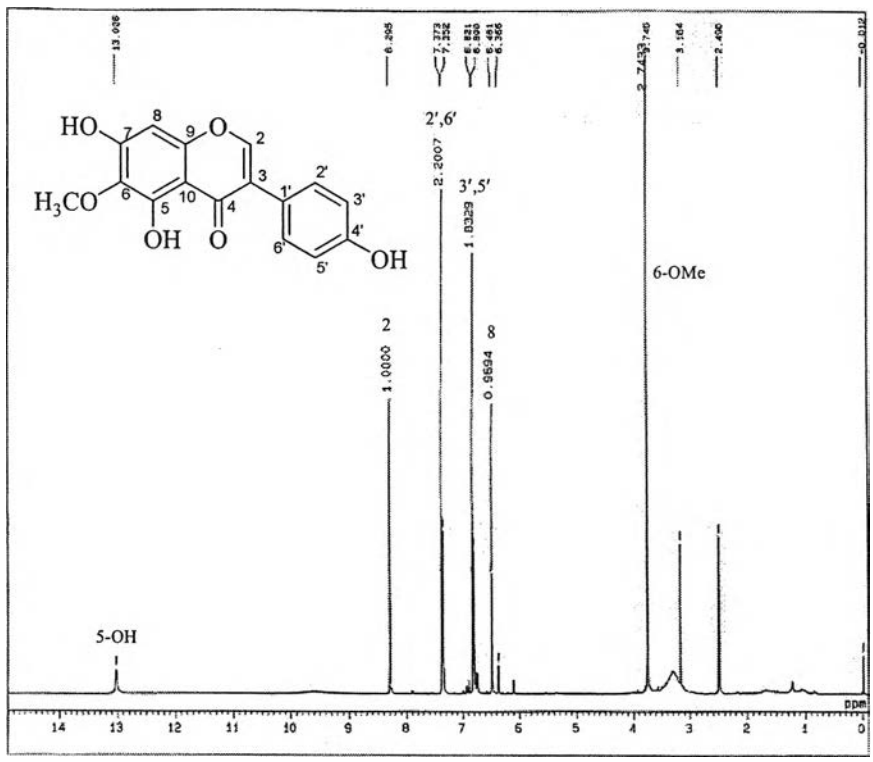

Figure 20 ^{1}H NMR (400 MHz) Spectrum of compound BC1 (DMSO-d_6)

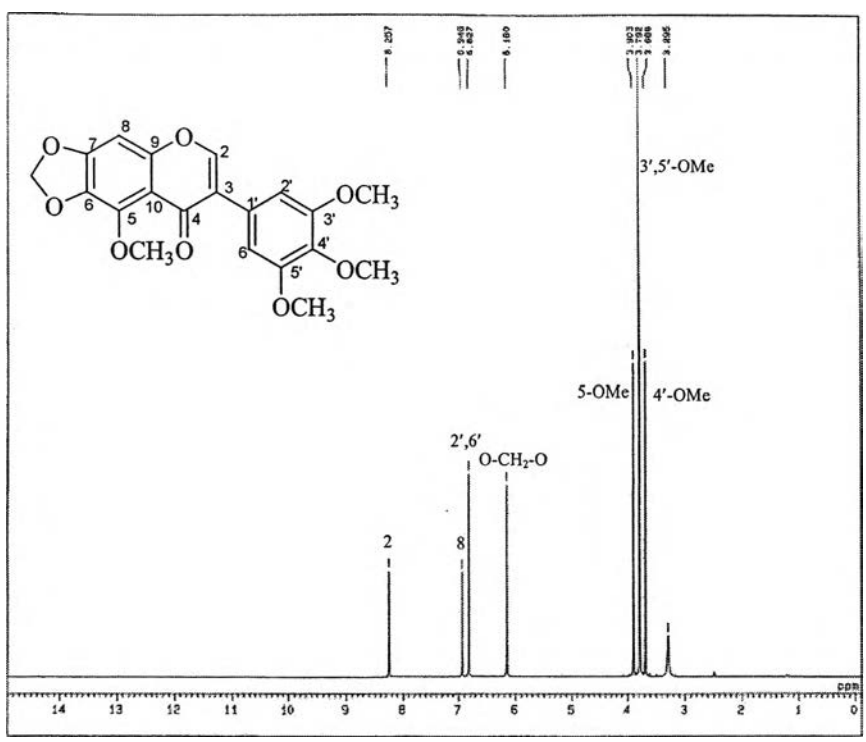

Figure 21 ^{1}H NMR (400 MHz) Spectrum of compound BC2 (DMSO-d_6)

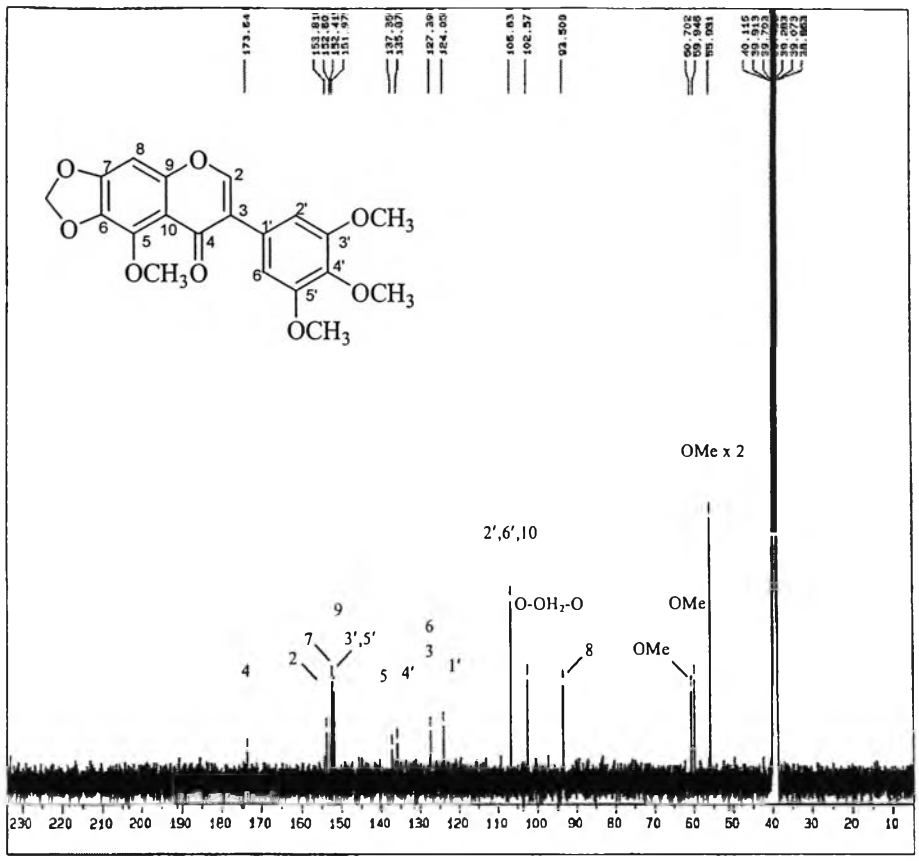

Figure 22 ^{13}C NMR (100.4 MHz) Spectrum of compound BC2 (DMSO-d_6)

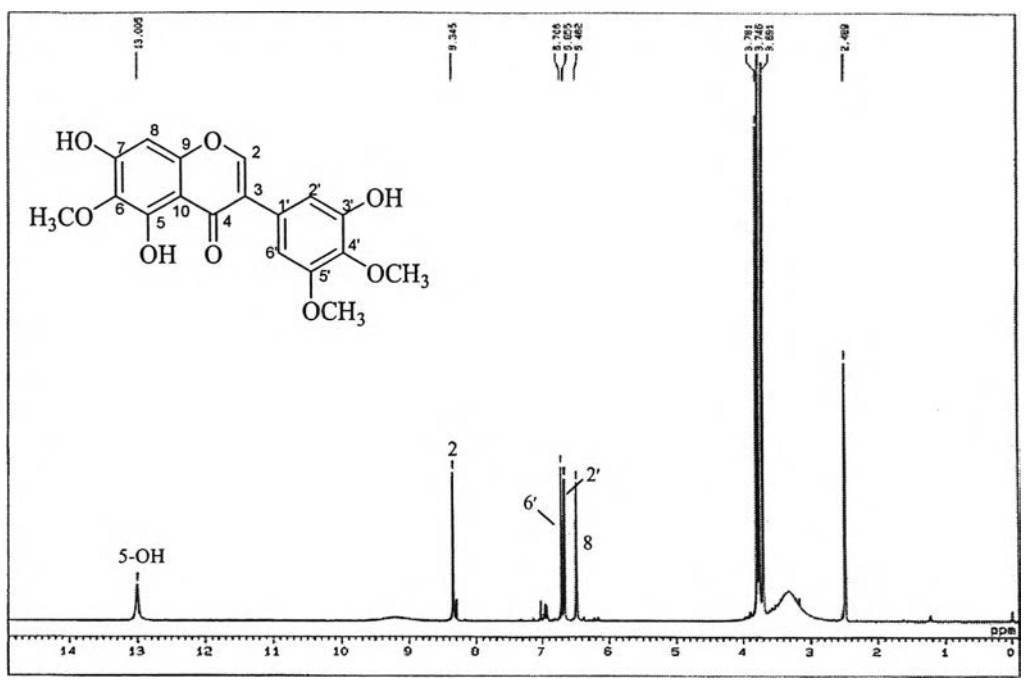

Figure 23 ^{1}H NMR (400 MHz) Spectrum of compound BC3 (DMSO-d_6)

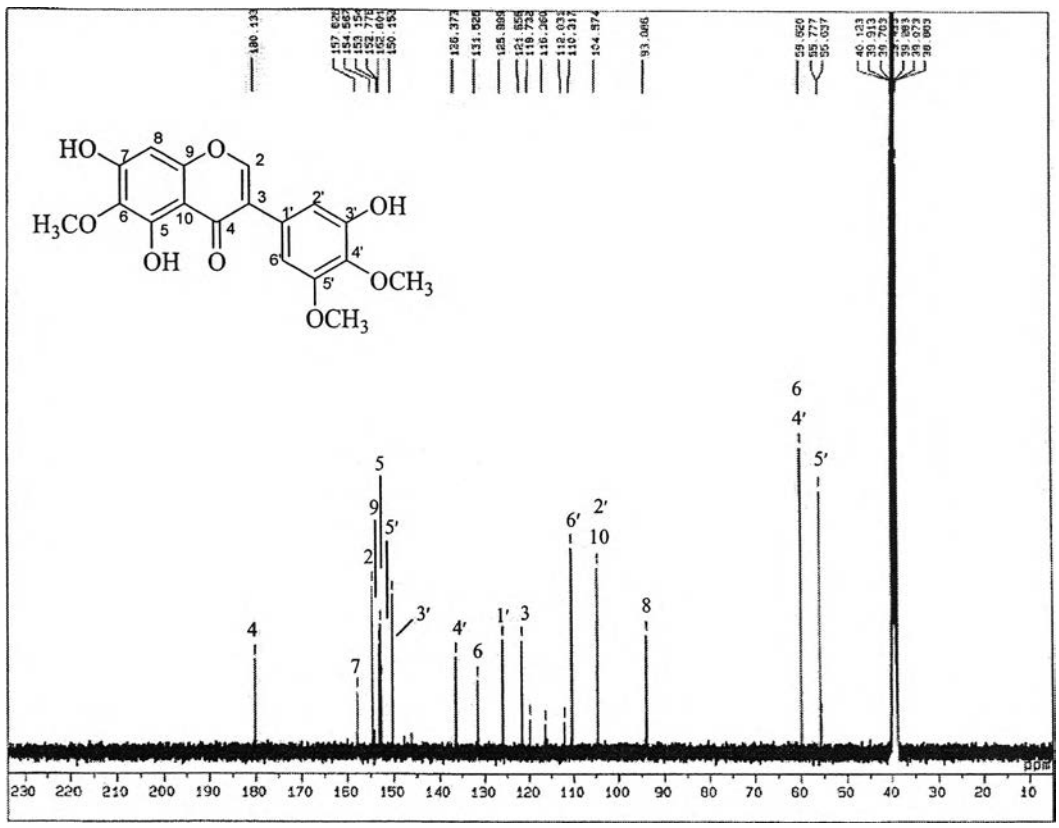

Figure 24 ^{13}C NMR (100.4 MHz) Spectrum of compound BC3 (DMSO-d_6)

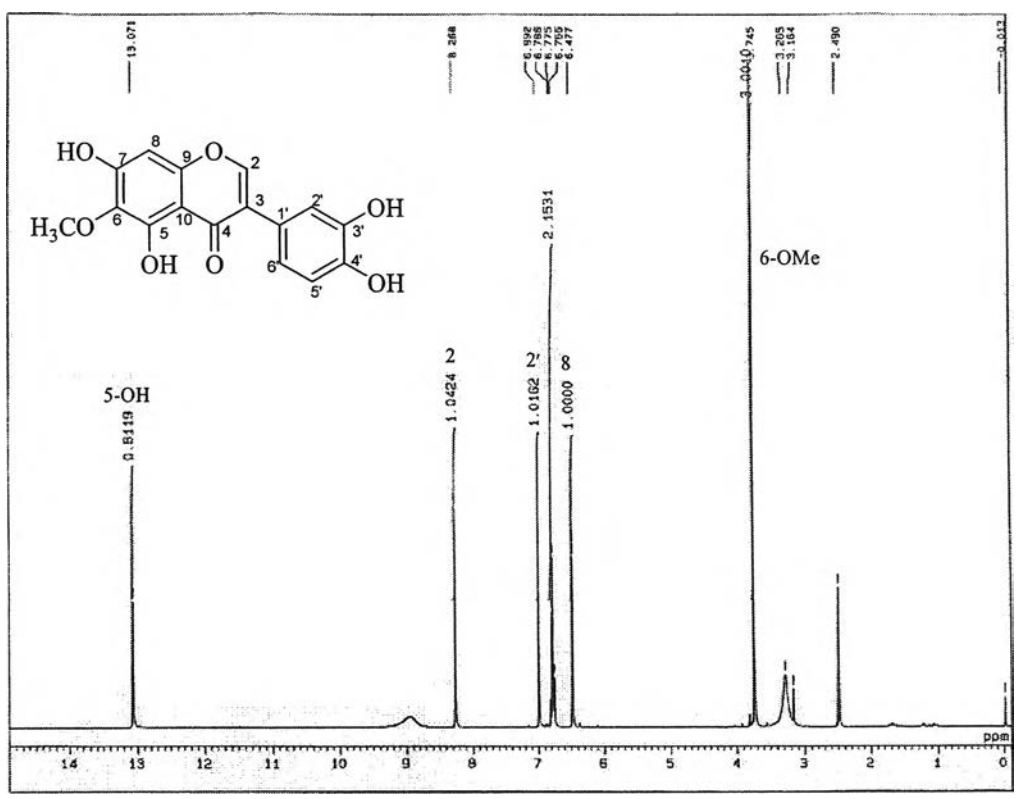

Figure 25 ^{1}H NMR (400 MHz) Spectrum of compound BC4 (DMSO-d_6)

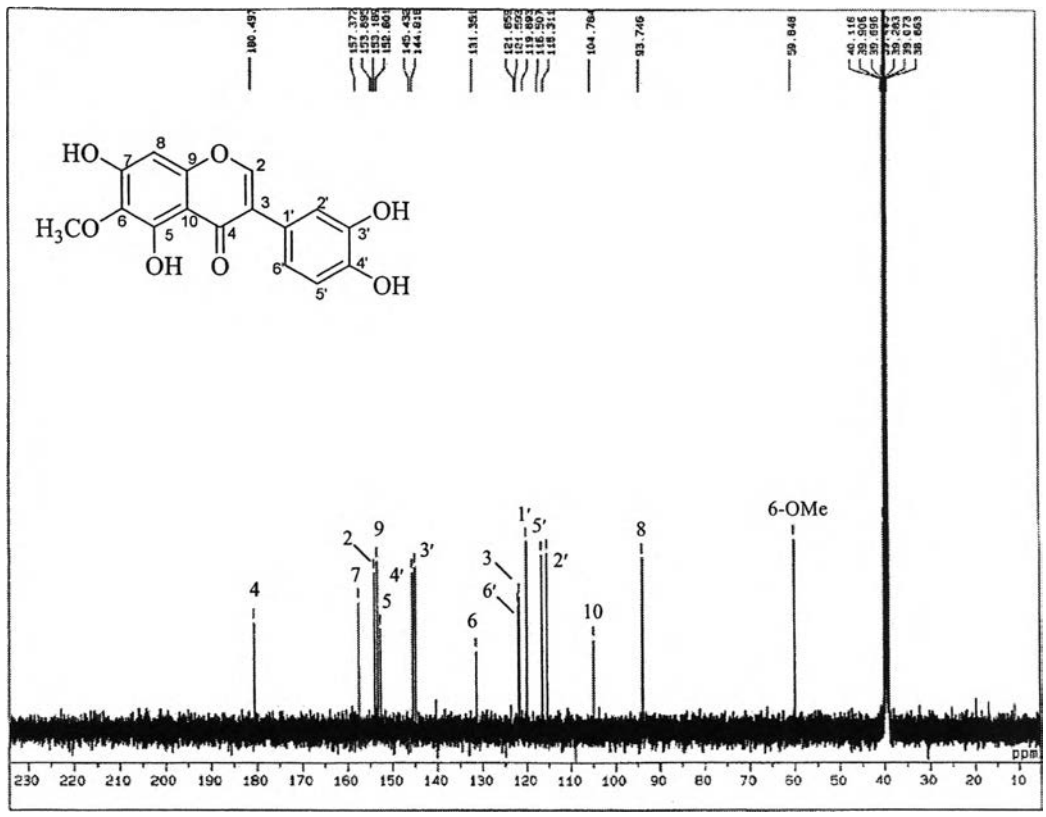

Figure 26 ^{13}C NMR (100.4 MHz) Spectrum of compound BC4 (DMSO-d_6)

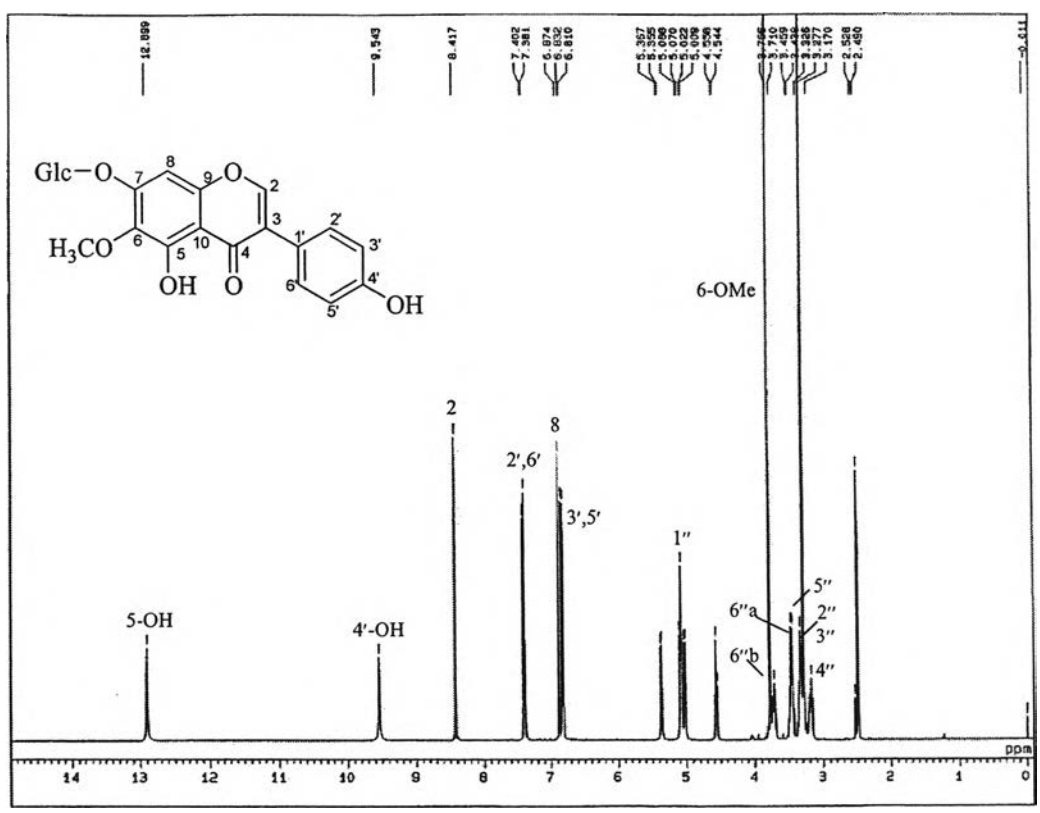

Figure 27 ^{1}H NMR (400 MHz) Spectrum of compound BC5 (DMSO-d_6)

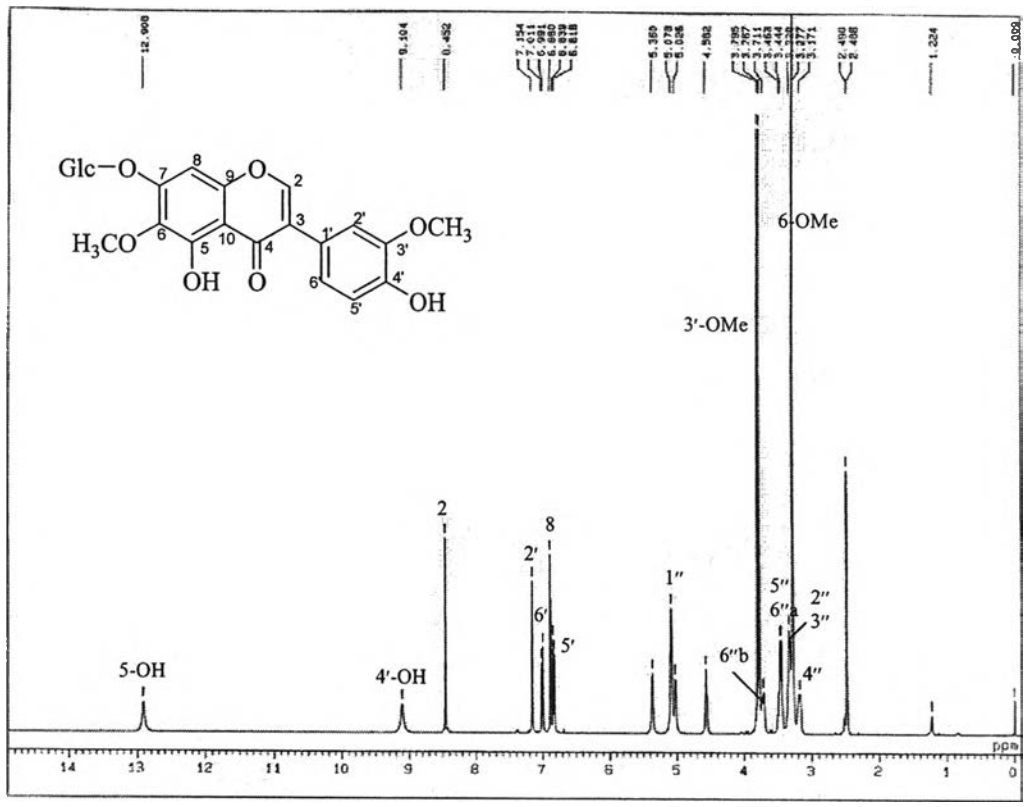

Figure 28 ^{1}H NMR (400 MHz) Spectrum of compound BC6 (DMSO-d_6)

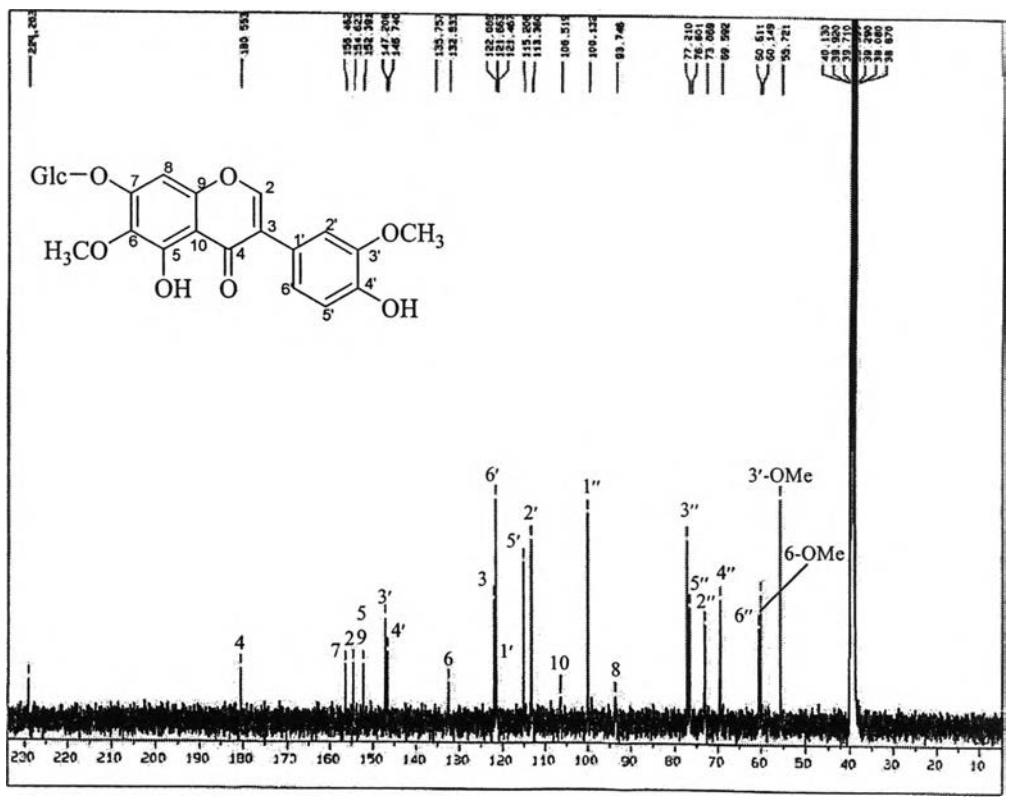

Figure 29 ^{13}C NMR (100.4 MHz) Spectrum of compound BC6 (DMSO-d_6)

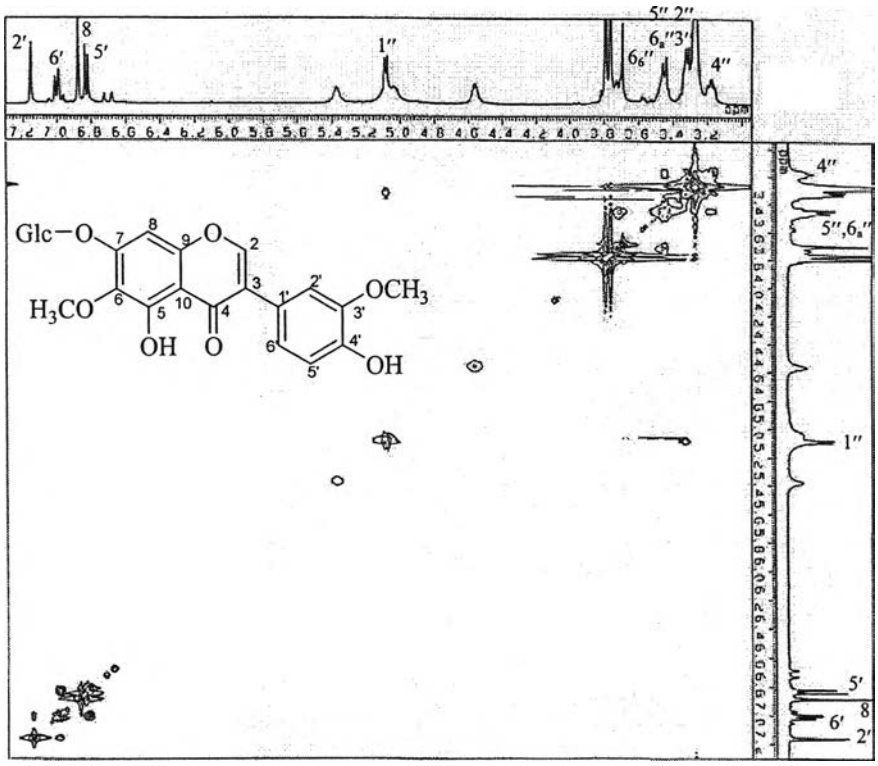

Figure 30 ^{1}H-^{1}H COSY Spectrum of compound BC6 (DMSO-d_6)

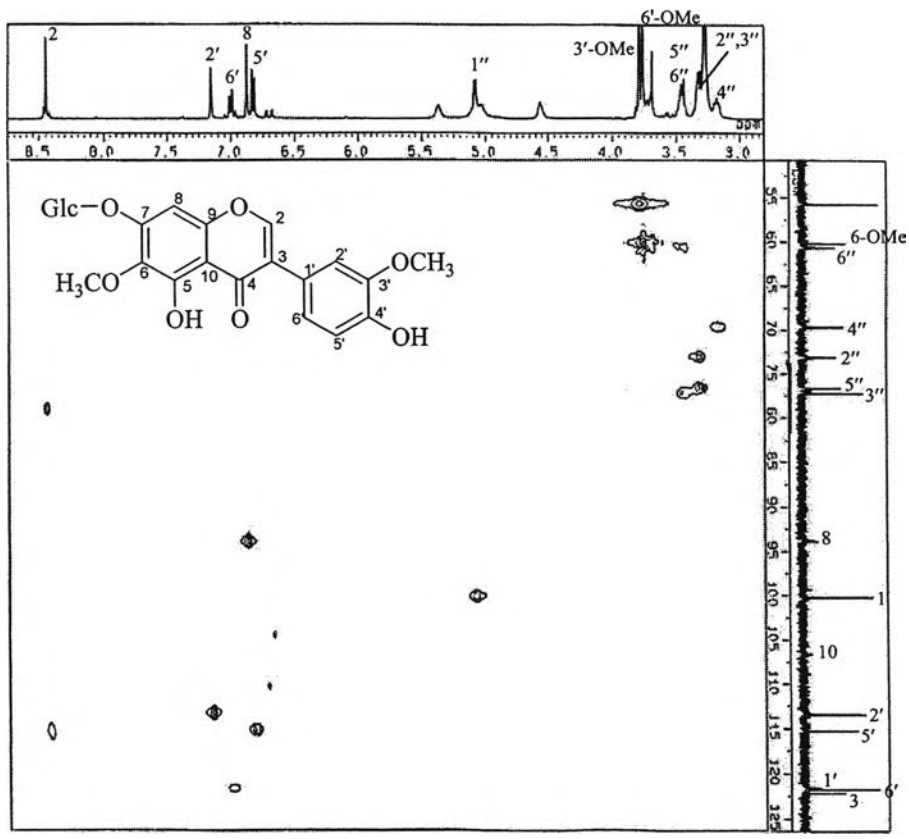

Figure 31 HMQC Spectrum of compound BC6 (DMSO-d_6)

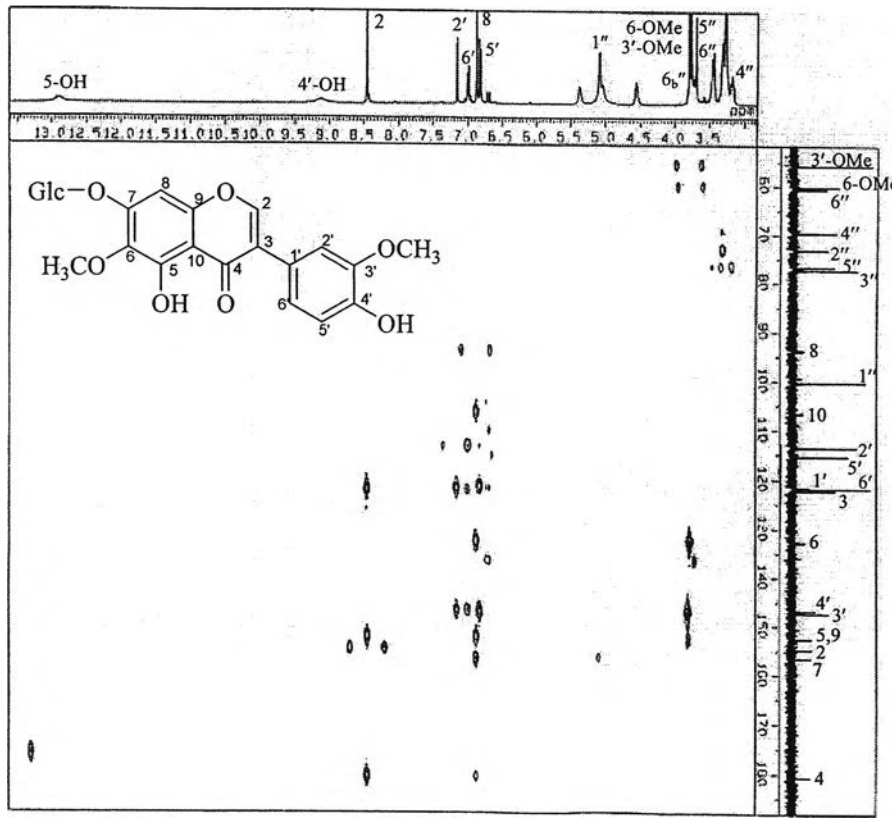

Figure 32 HMBC Spectrum of compound BC6 (DMSO-d_6)

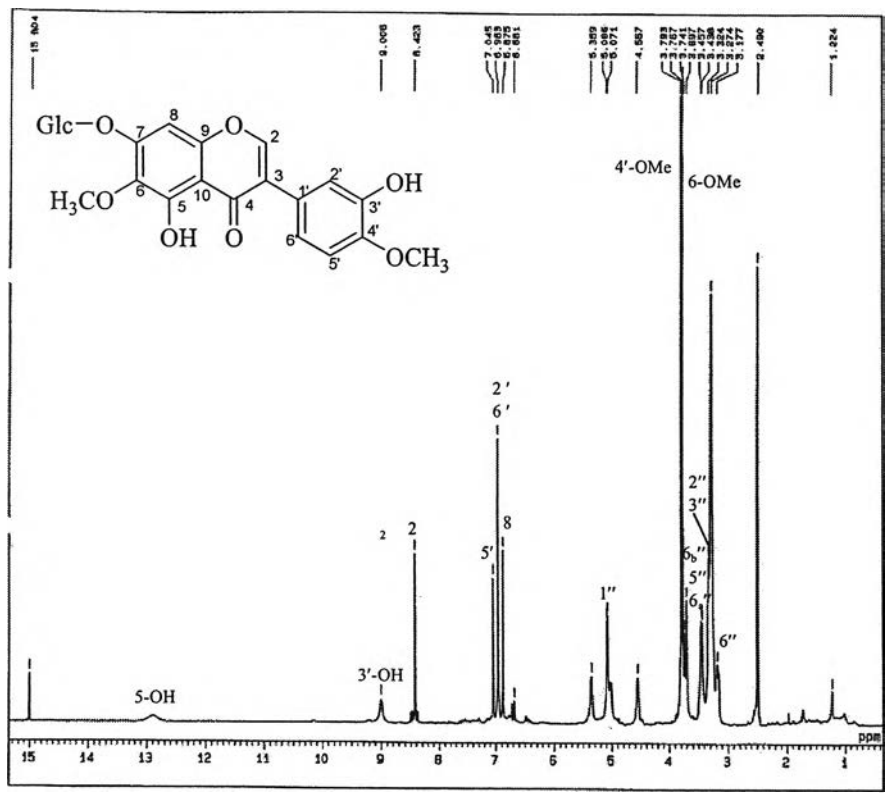

Figure 33 ^{1}H NMR (400MHz) Spectrum of compound BC7 (DMSO-d_6)

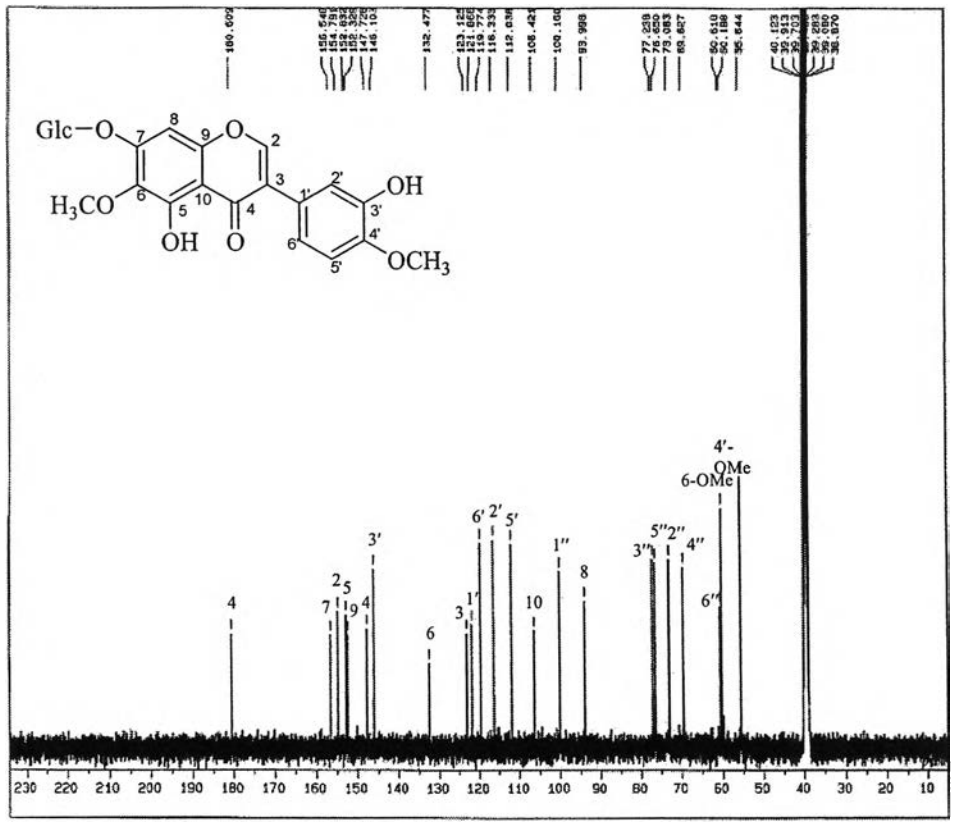

Figure 34 ^{13}C NMR (100.4 MHz) Spectrum of compound BC7 (DMSO-d_6)

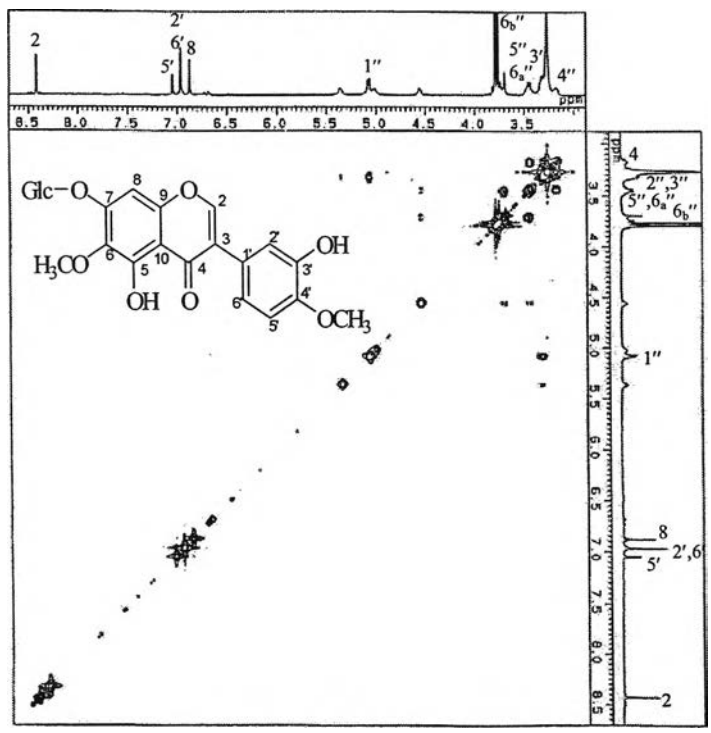

Figure 35 ^{1}H-^{1}H COSY Spectrum of compound BC7 (DMSO-d_6)

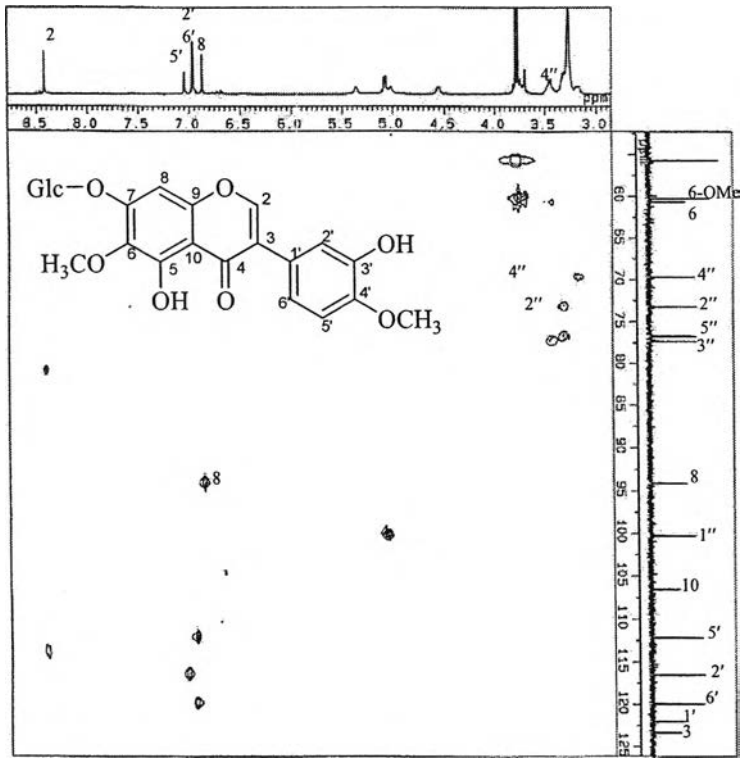

Figure 36 HMQC Spectrum of compound BC7 (DMSO-d_6)

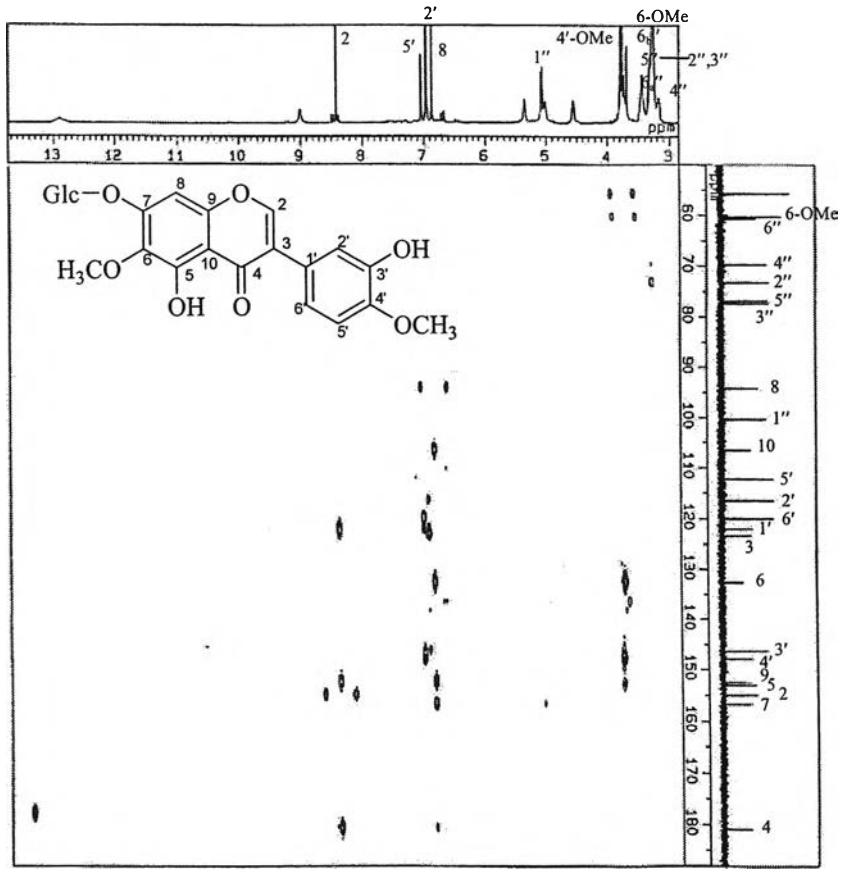

Figure 37 HMBC Spectrum of compound BC7 (DMSO-d_6)

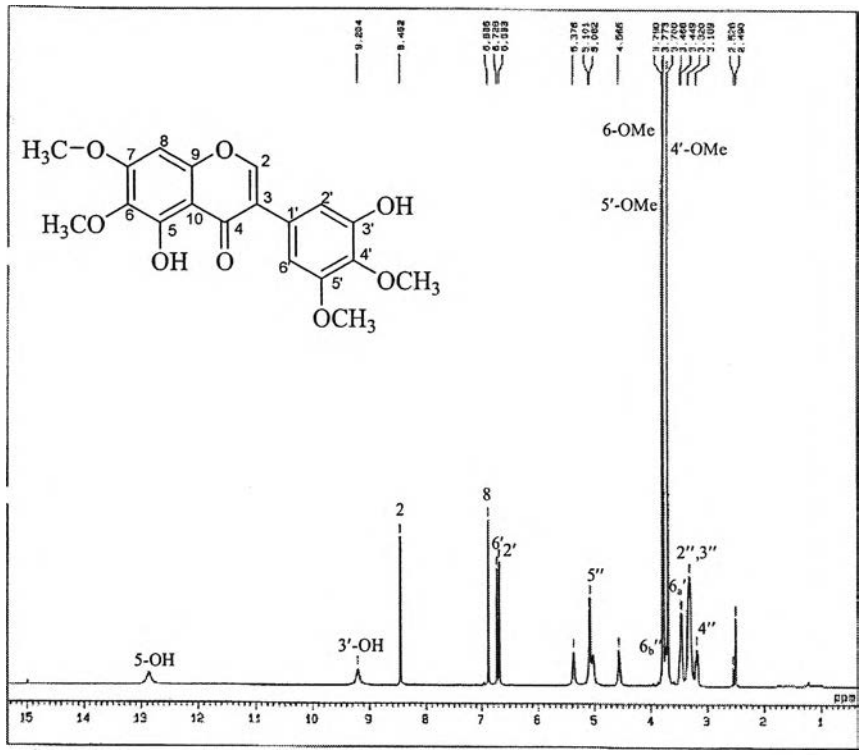

Figure 38 ^{1}H NMR (400 MHz) Spectrum of compound BC8 (DMSO-d_6)

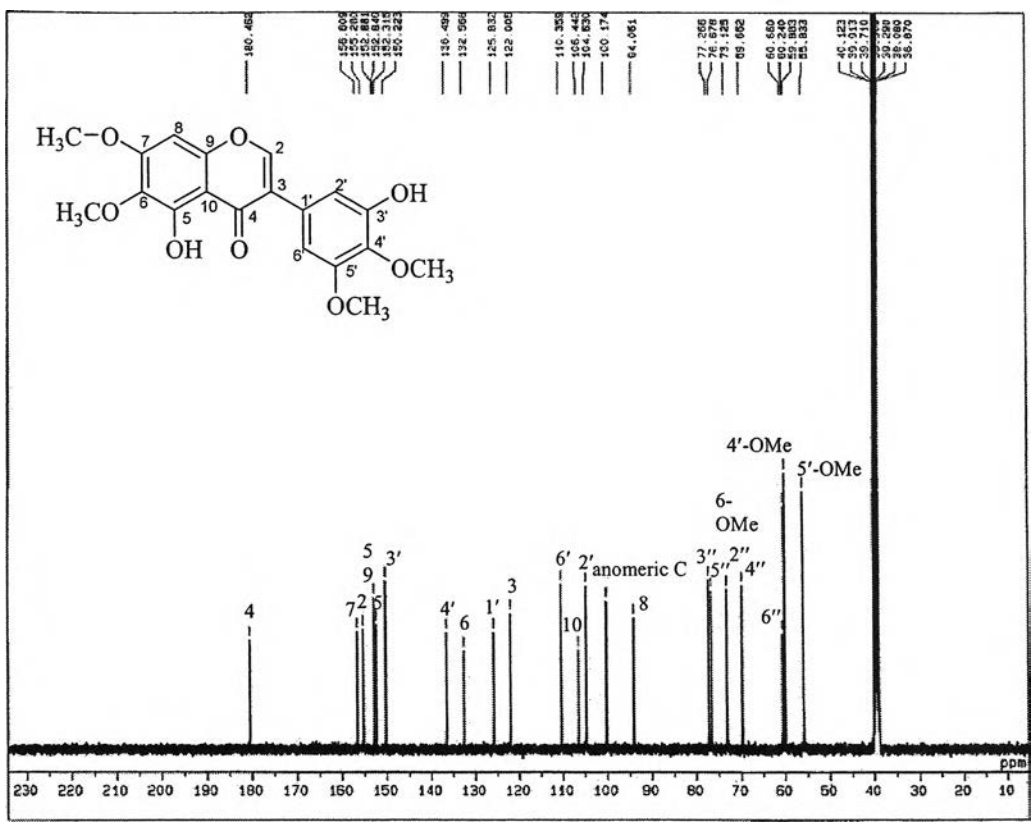

Figure 39 ^{13}C NMR (100.4) Spectrum of compound BC8 (DMSO-d_6)

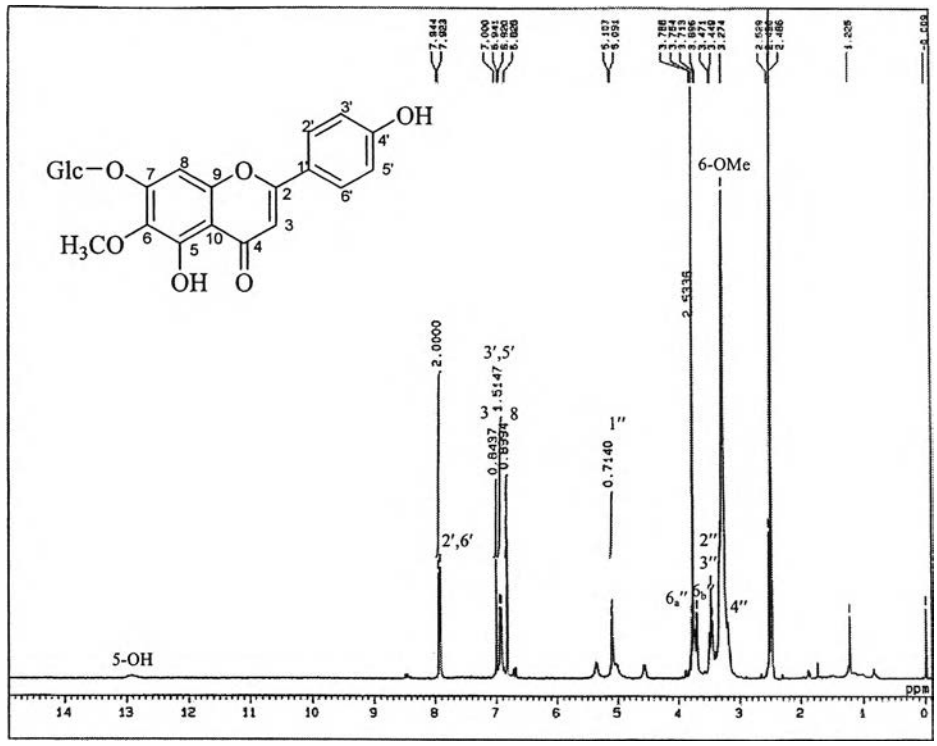

Figure 40 ^{1}H NMR (400 MHz) Spectrum of compound BC9 (DMSO-d_6)

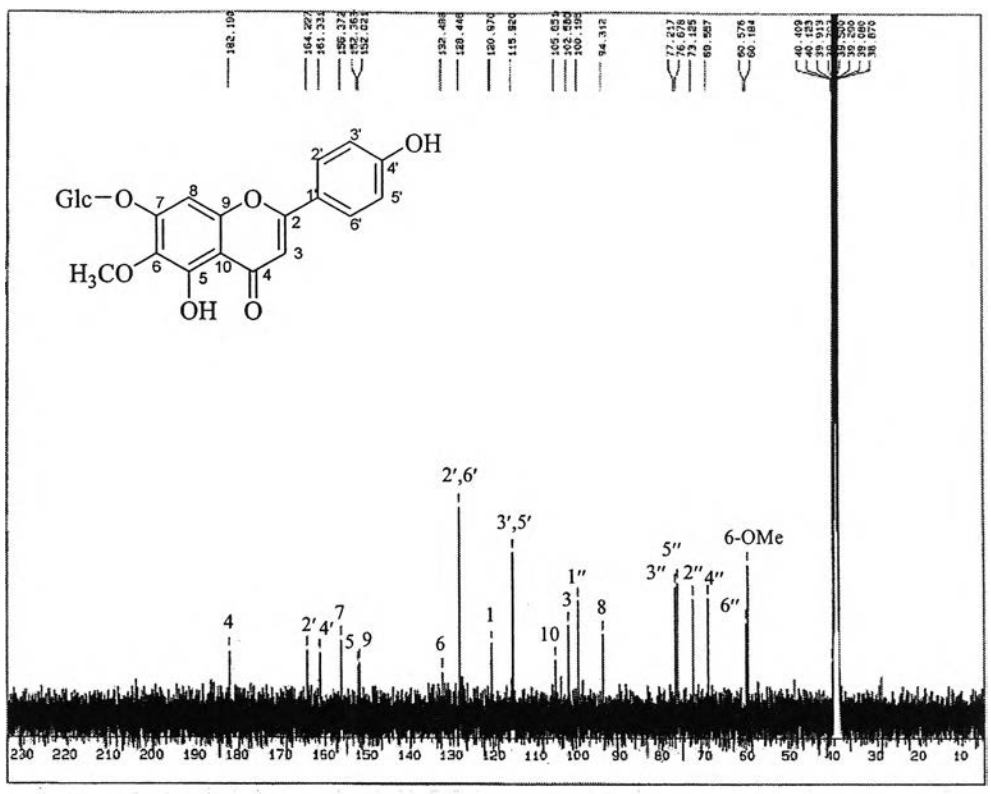

Figure 41 ^{13}C NMR (100.4 MHz) Spectrum of compound BC9 (DMSO-d_6)

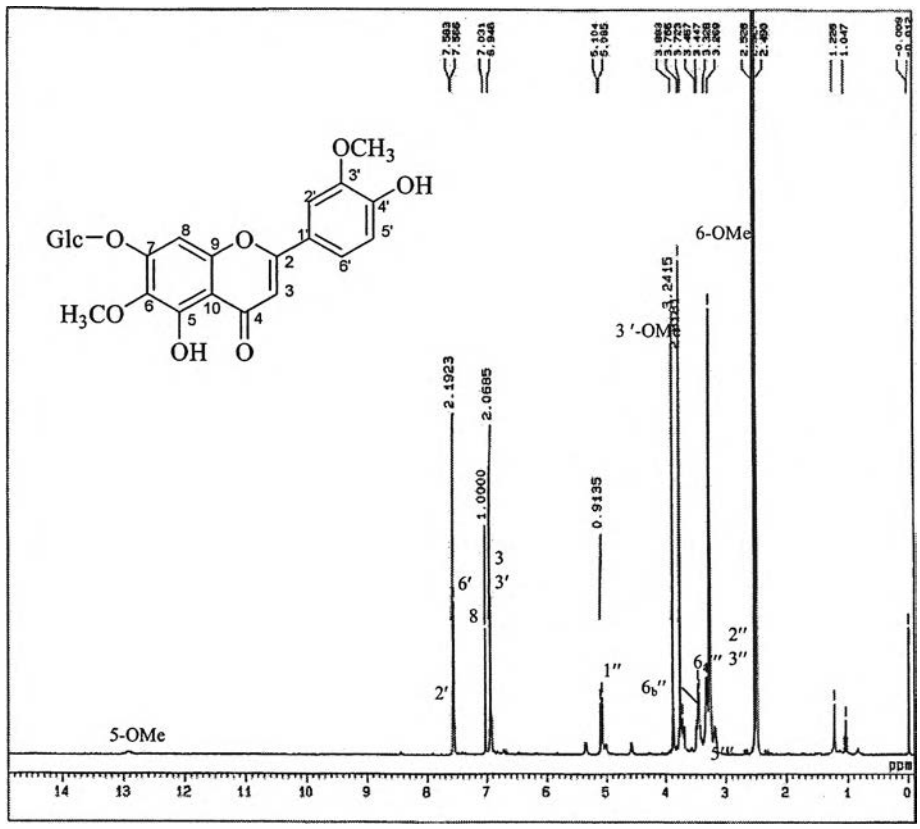

Figure 42 ^{1}H NMR (400 MHz) Spectrum of compound BC10 (DMSO-d_6)

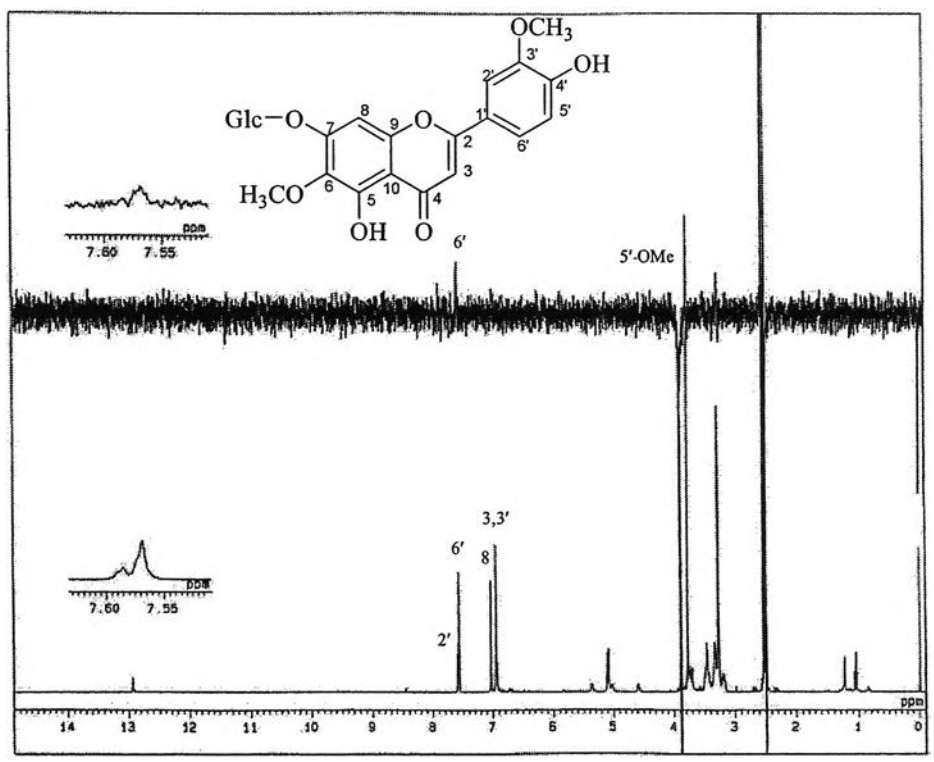

Figure 43 NOE difference Spectrum of compound BC10 (DMSO-d_6)

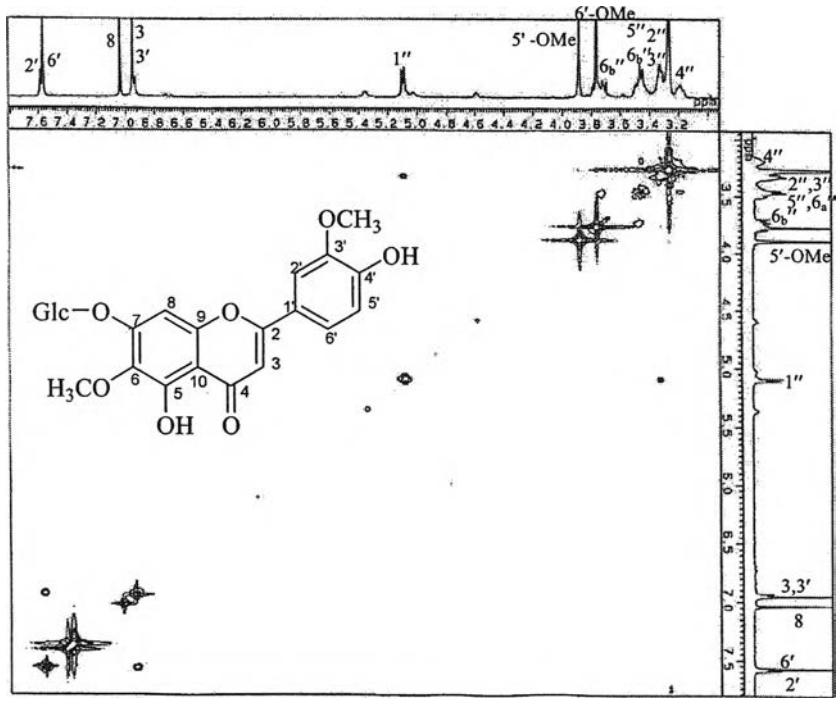

Figure 44 ^{1}H-^{1}H COSY Spectrum of compound BC10 (DMSO-d_6)

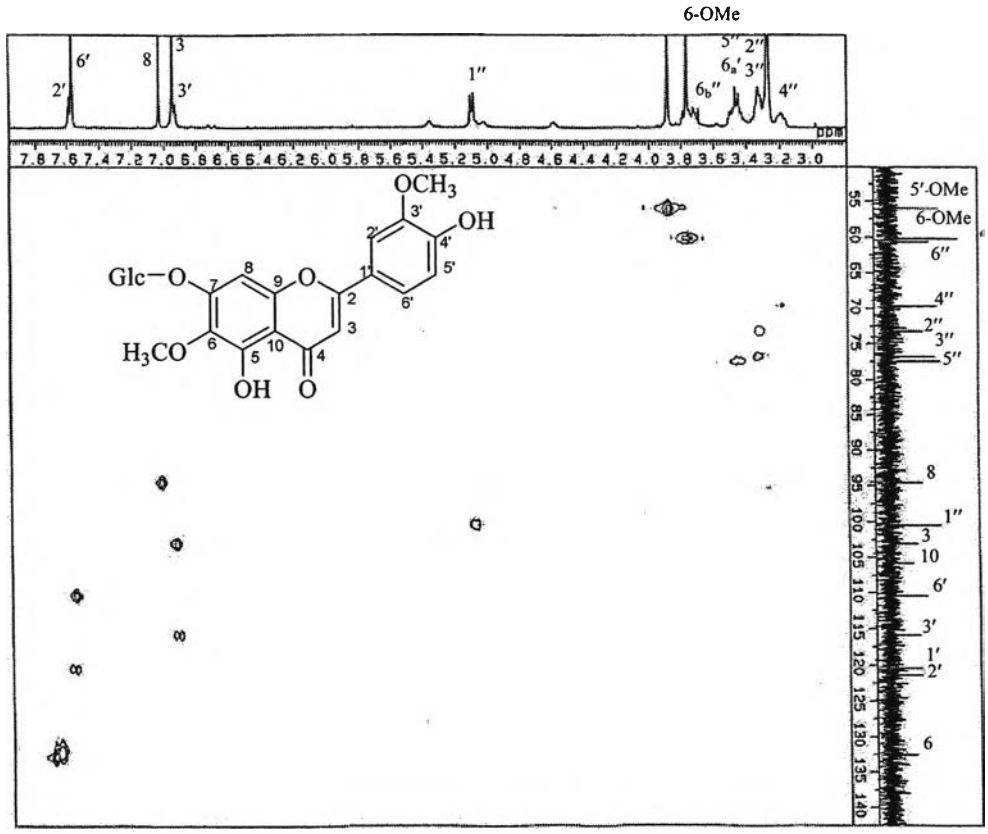

Figure 45 HMQC Spectrum of compound BC10 (DMSO-d_6)

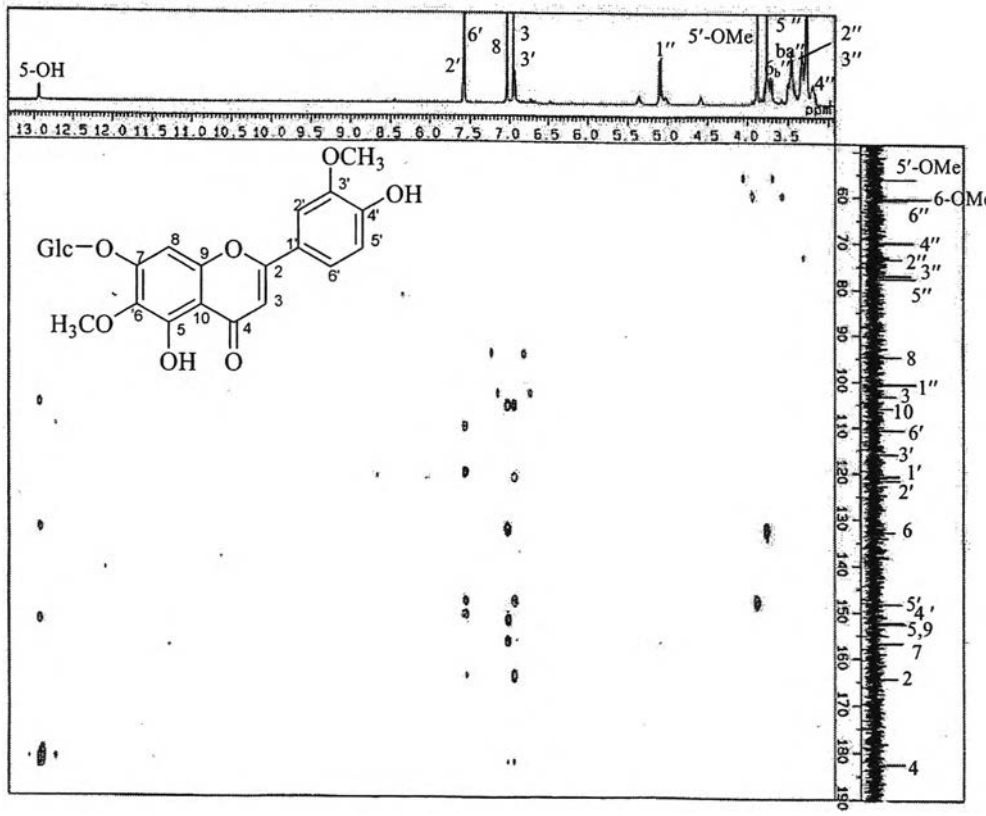

Figure 46 HMBC Spectrum of compound BC10 (DMSO-d_6)

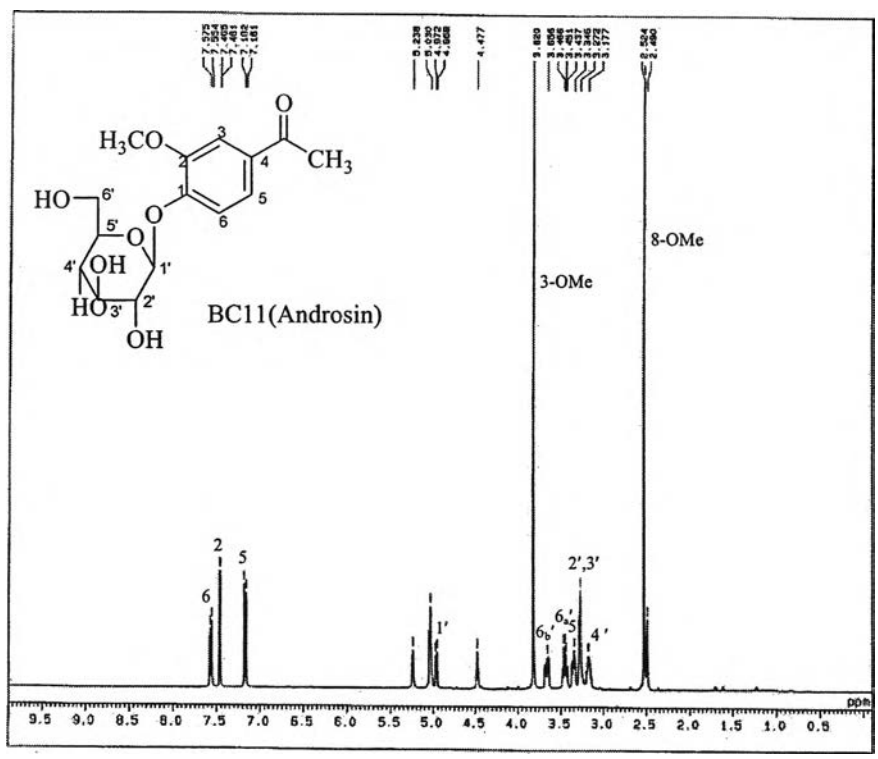

Figure 47 ^{1}H NMR (400 MHz) Spectrum of compound BC11 (DMSO-d_6)

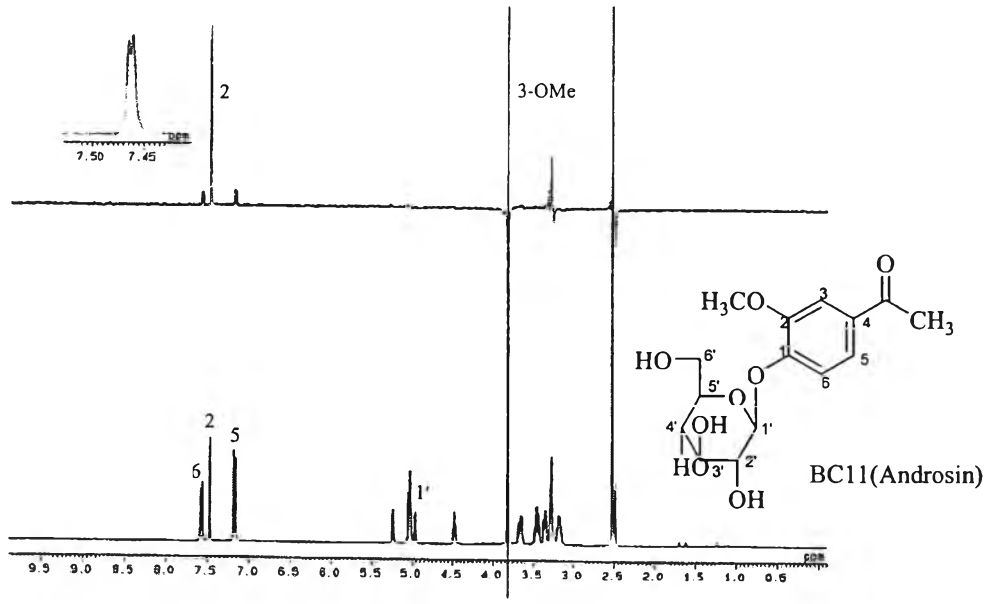

Figure 48 NOE difference Spectrum of compound BC11 (DMSO-d_6)

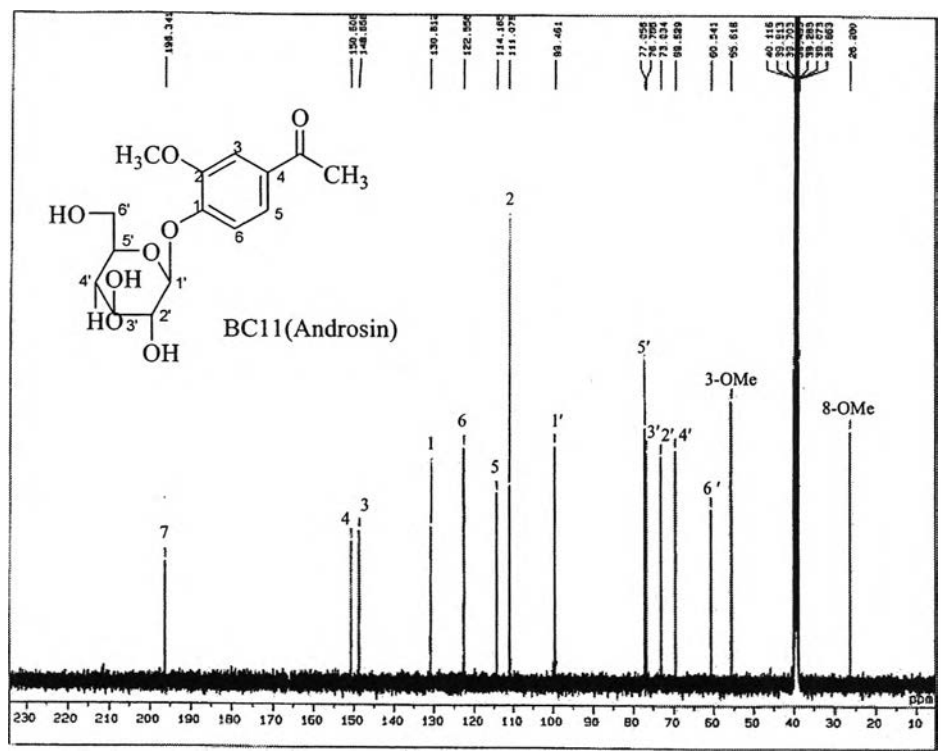

Figure 49 ^{13}C NMR (100.4MHz) Spectrum of compound BC11 (DMSO-d_6)

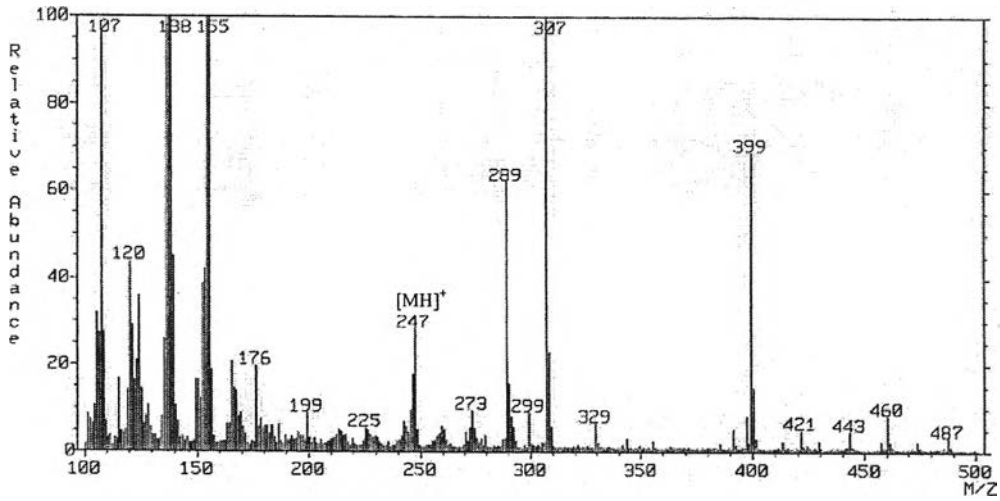

Figure 50 FABMS Spectrum of compound BC12

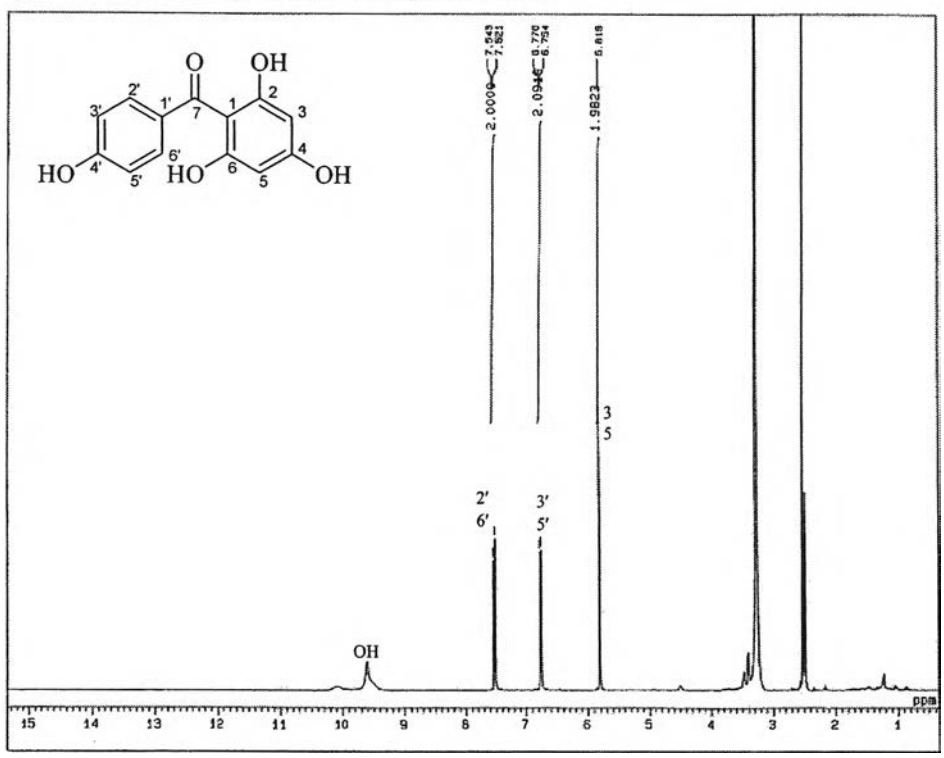

Figure 51 ^{1}H NMR (400 MHz) Spectrum of compound BC12 (DMSO-d_6)

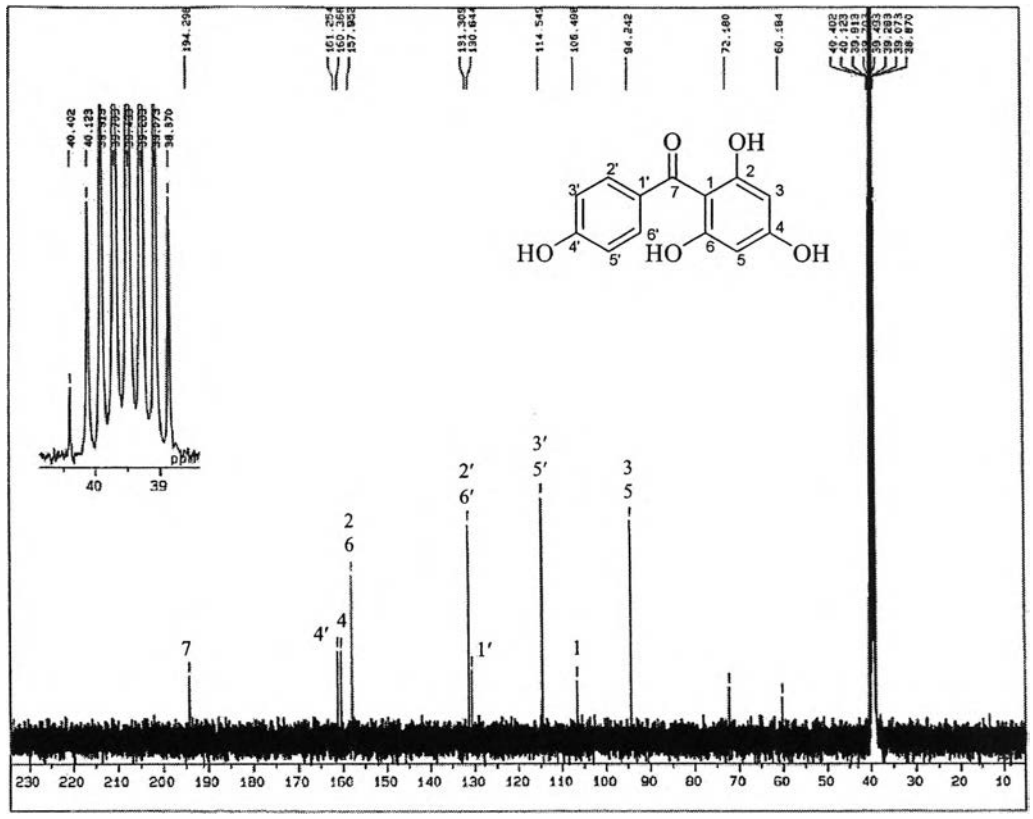

Figure 52 ^{13}C NMR (100.4 MHz) Spectrum of compound BC12 (DMSO-d_6)

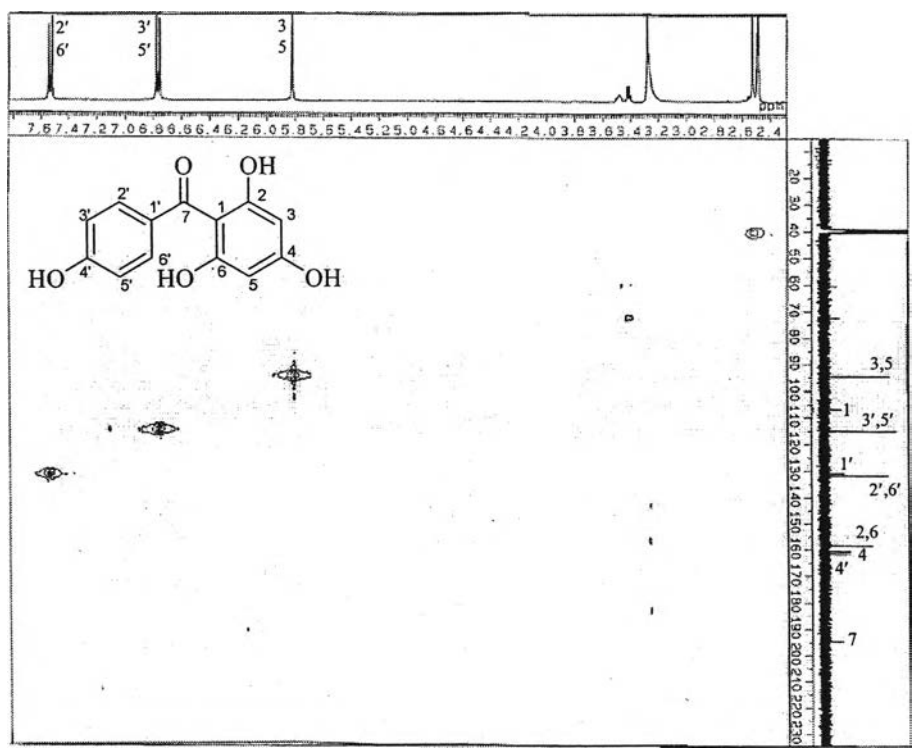

Figure 53 HMQC Spectrum of compound BC12 (DMSO-d_6)

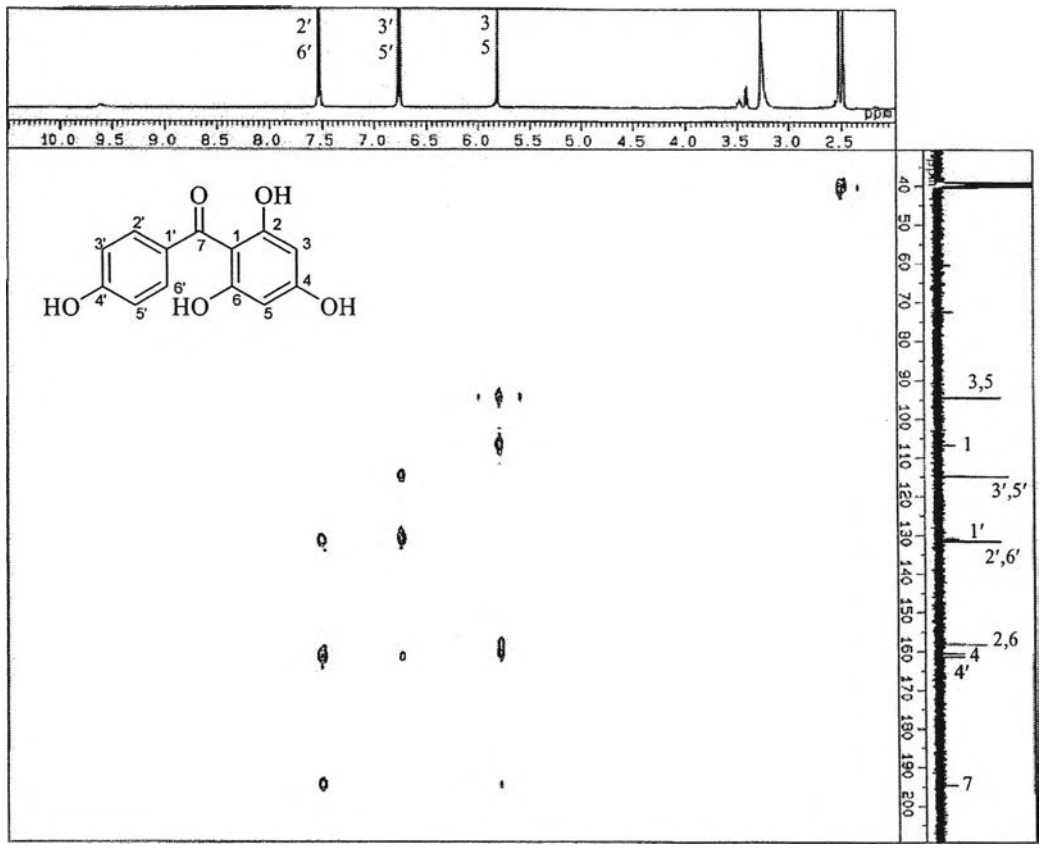

Figure 54 HMBC Spectrum of compound BC12 (DMSO-d_6)

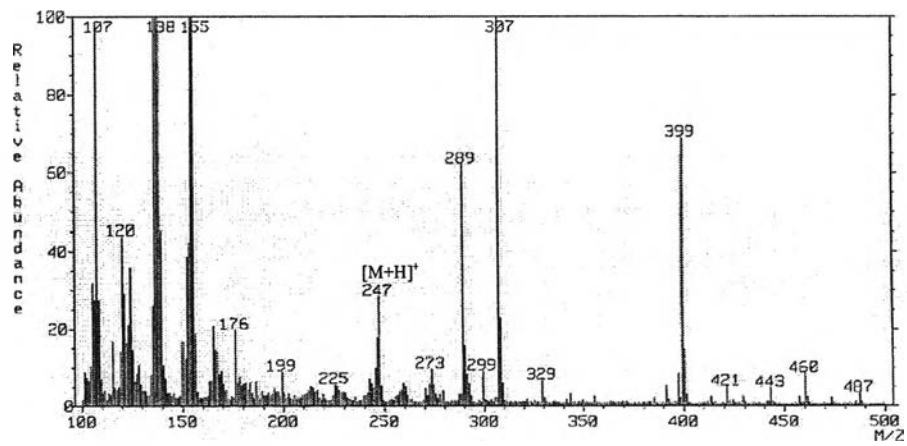

Figure 55 HRFABMS Spectrum of compound BC13

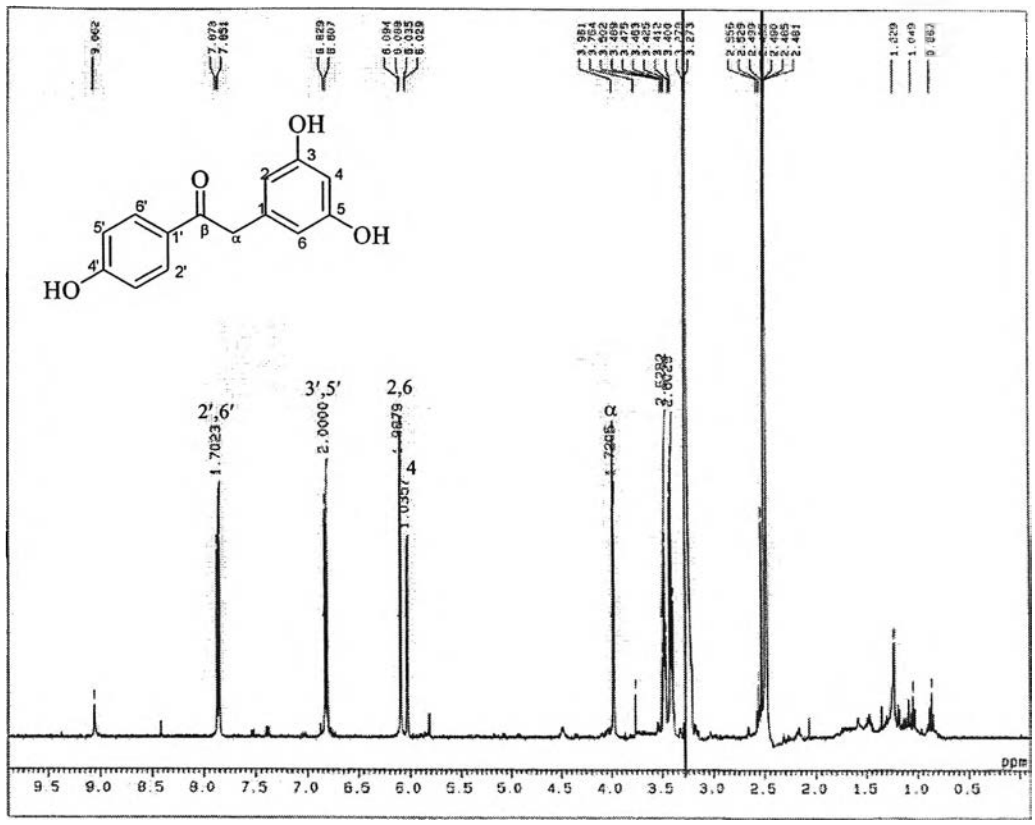

Figure 56 ^{1}H NMR (400 MHz) Spectrum of compound BC13 (DMSO-d_6)

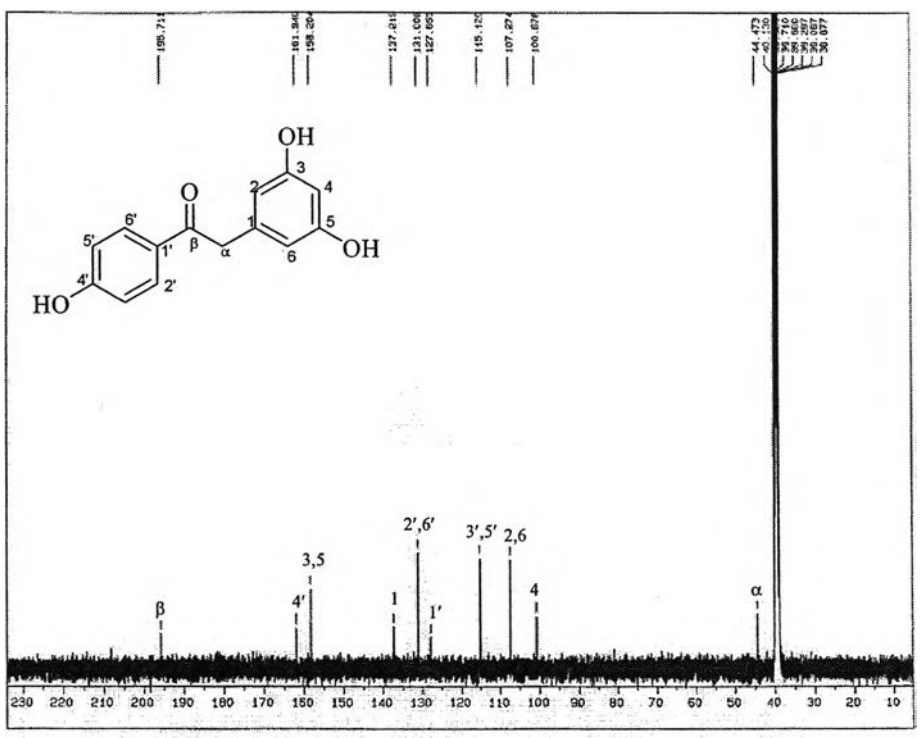

Figure 57 ^{13}C NMR Spectrum of compound BC13 (DMSO-d_6)

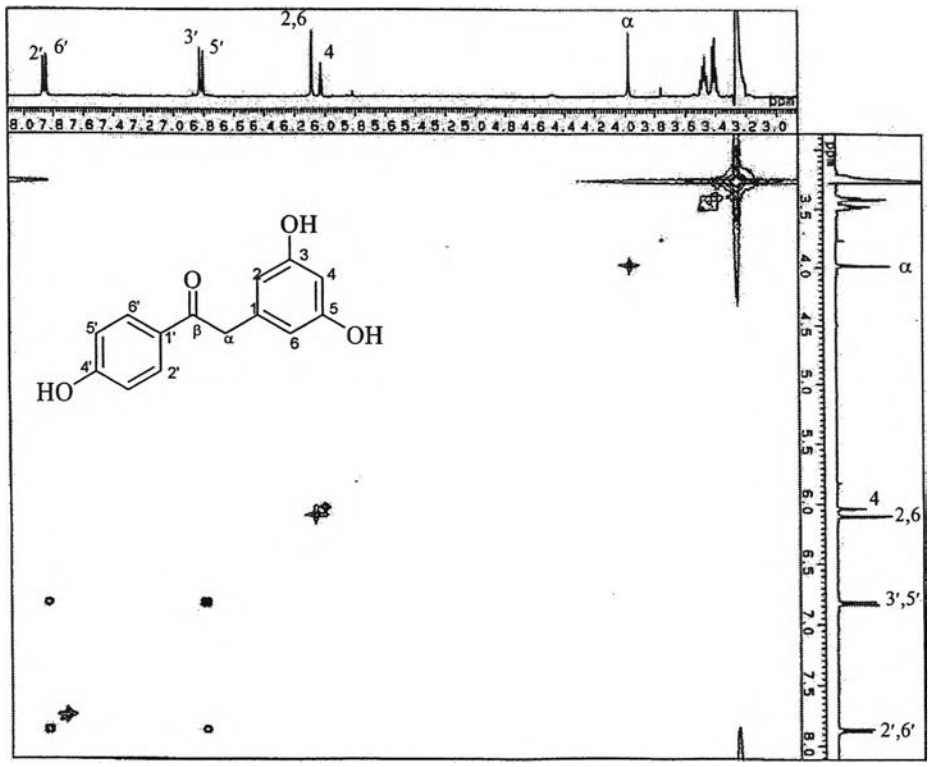

Figure 58 ^{1}H-^{1}H COSY Spectrum of compound BC13 (DMSO-d_6)

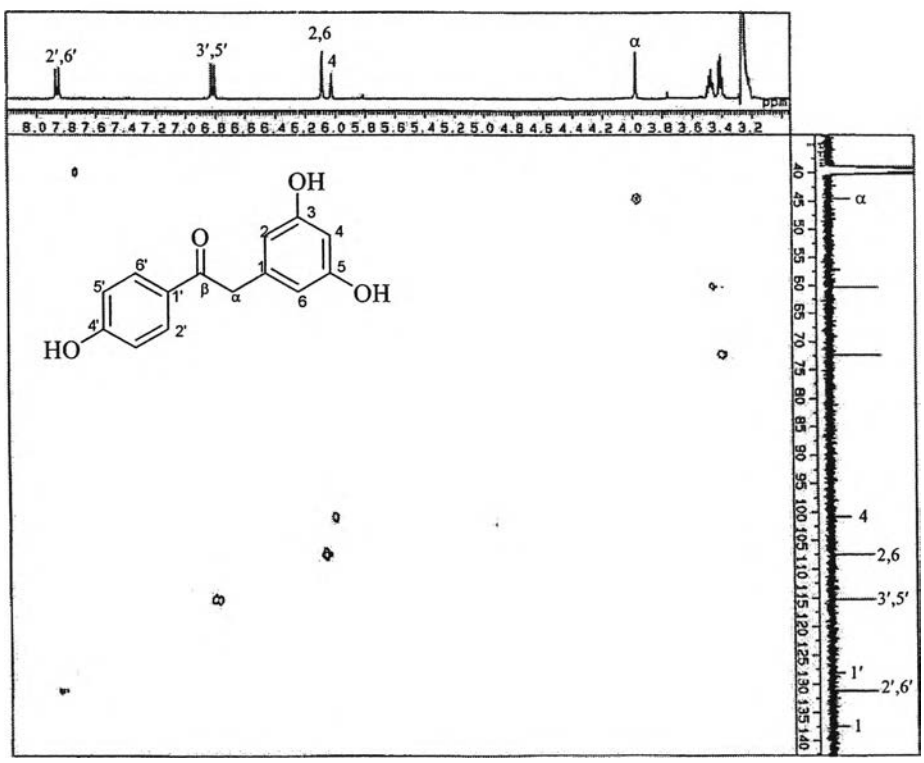

Figure 59 HMQC Spectrum of compound BC13 (DMSO-d_6)

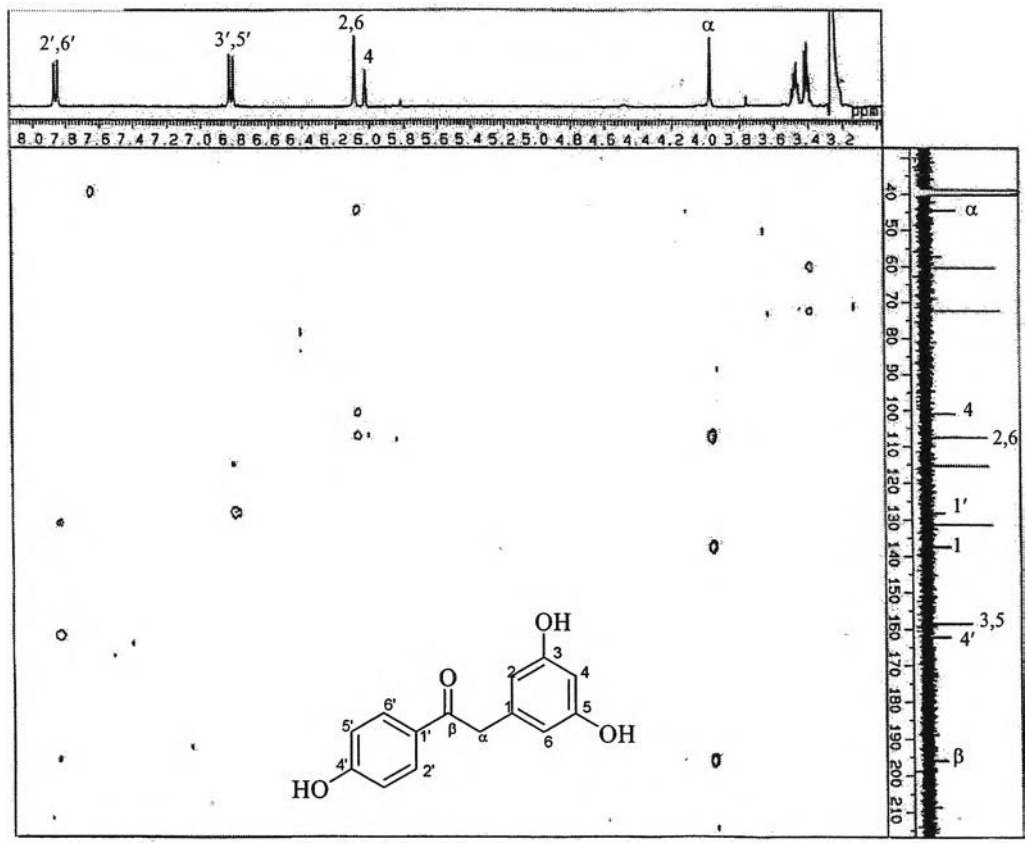

Figure 60 HMBC Spectrum of compound BC13 (DMSO-d_6)

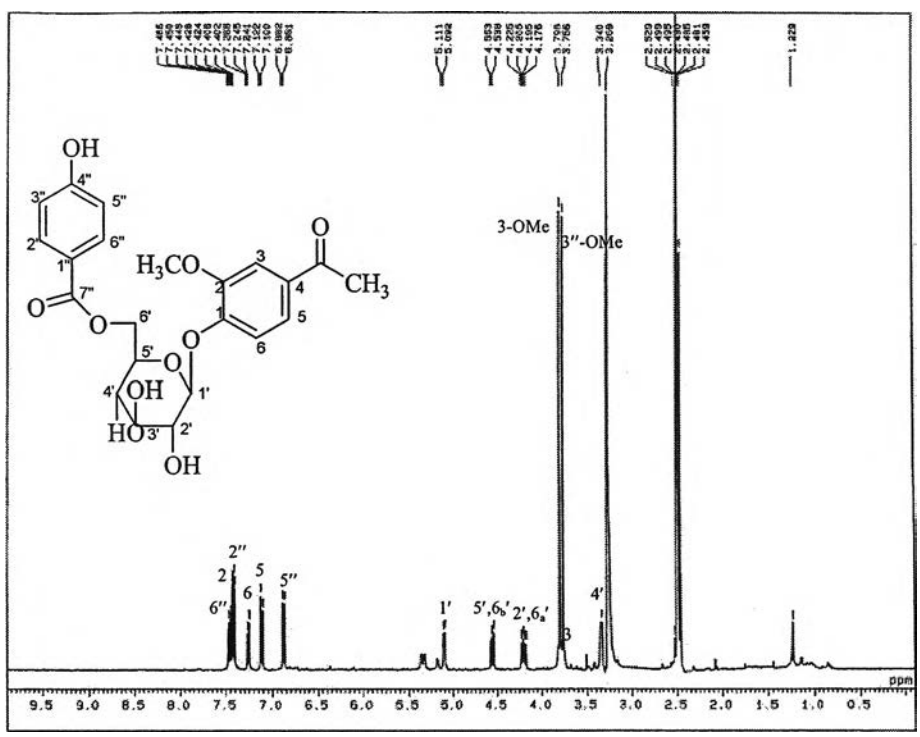

Figure 61 ^{1}H NMR (400 MHz) Spectrum of compound BC14 (DMSO-d_6)

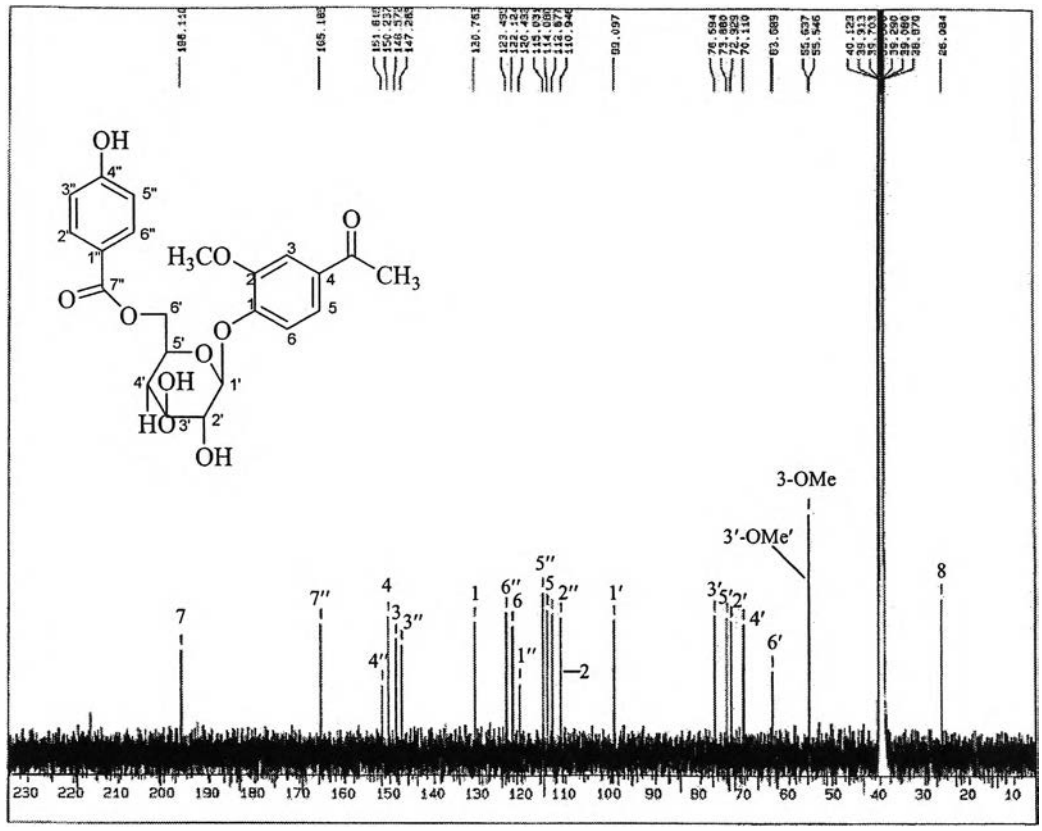

Figure 62 ^{13}C NMR (100.4 MHz) Spectrum of compound BC14 (DMSO-d_6)

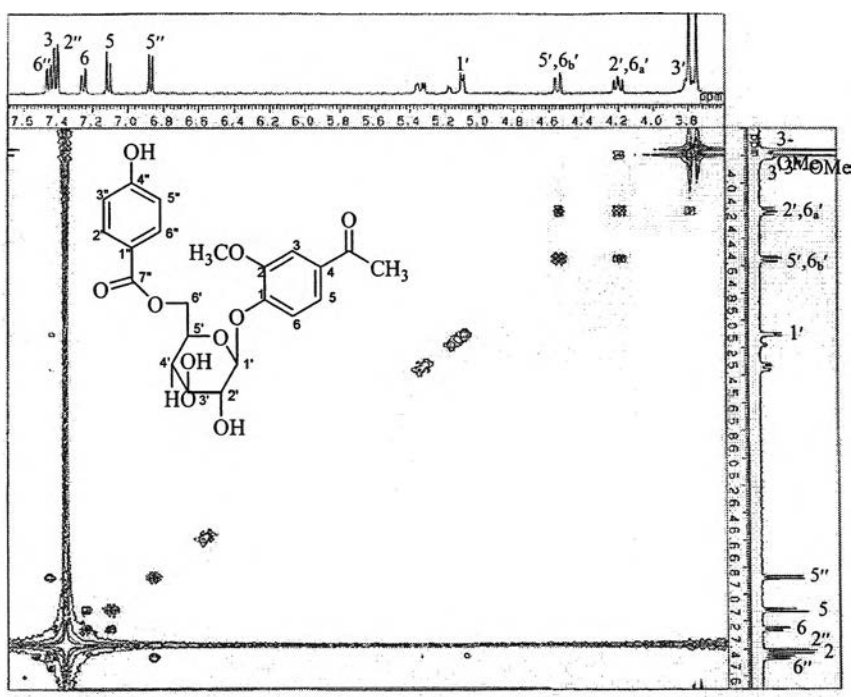

Figure 63 ^{1}H-^{1}H COSY Spectrum of compound BC14 (DMSO-d_6)

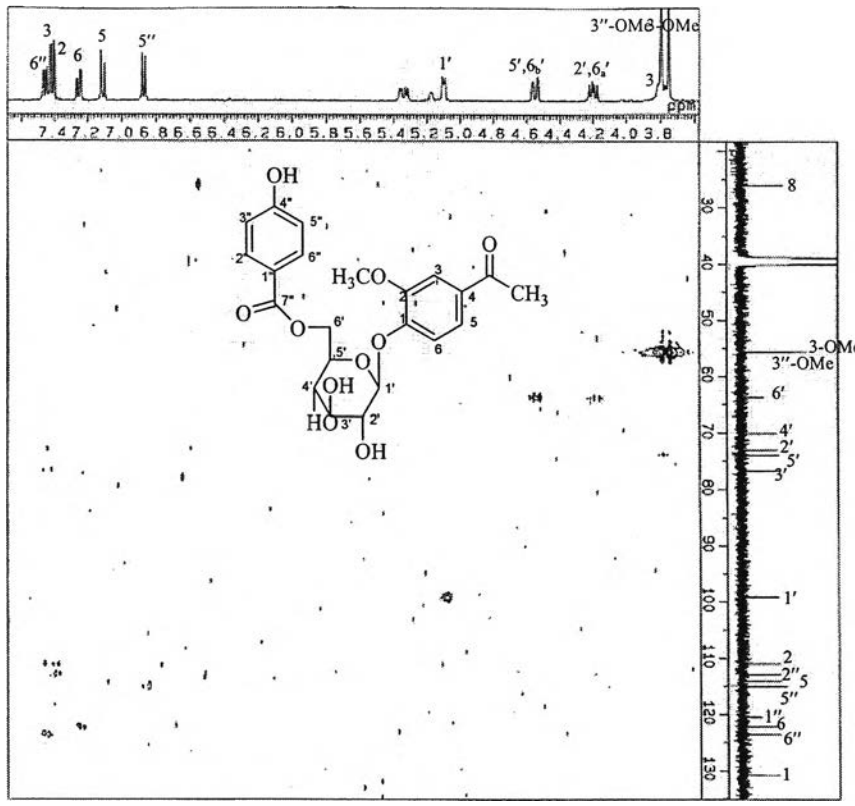

Figure 64 HMQC Spectrum of compound BC14 (DMSO-d_6)

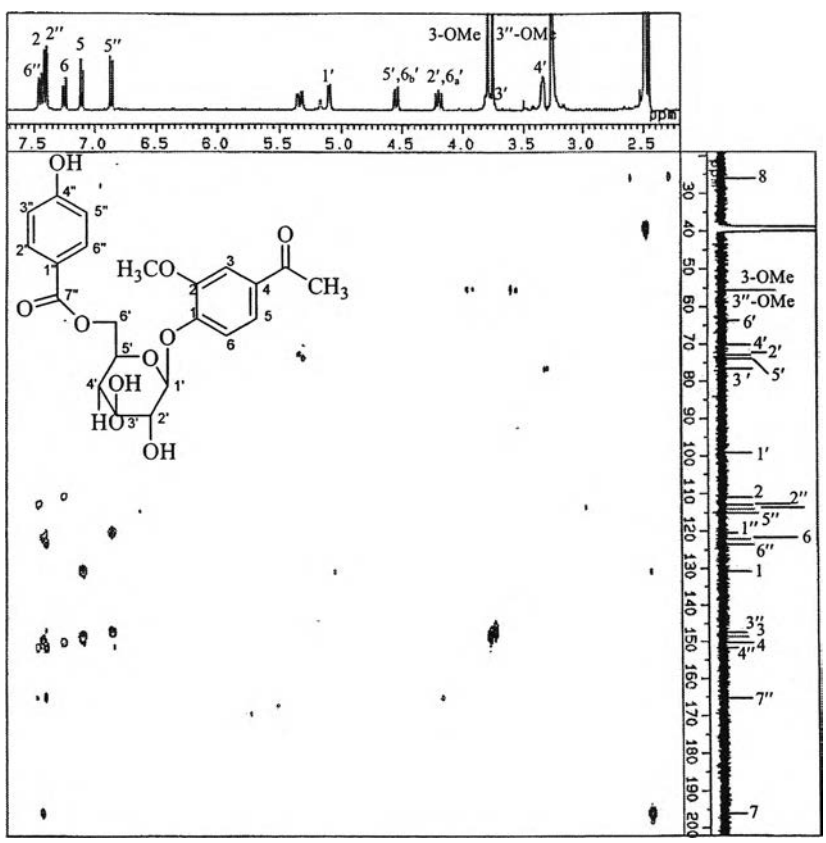

Figure 65 HMBC Spectrum of compound BC14 (DMSO-d_6)

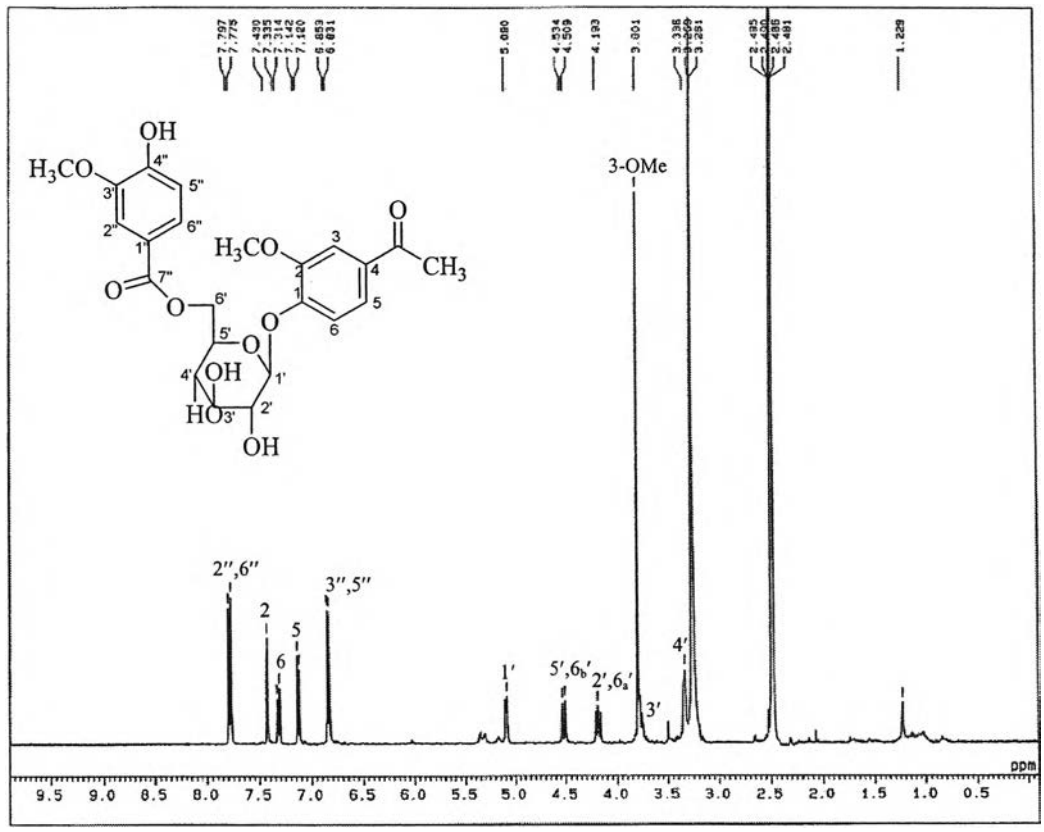

Figure 66 ^{1}H NMR (400 MHz) Spectrum of compound BC15 (DMSO-d_6)

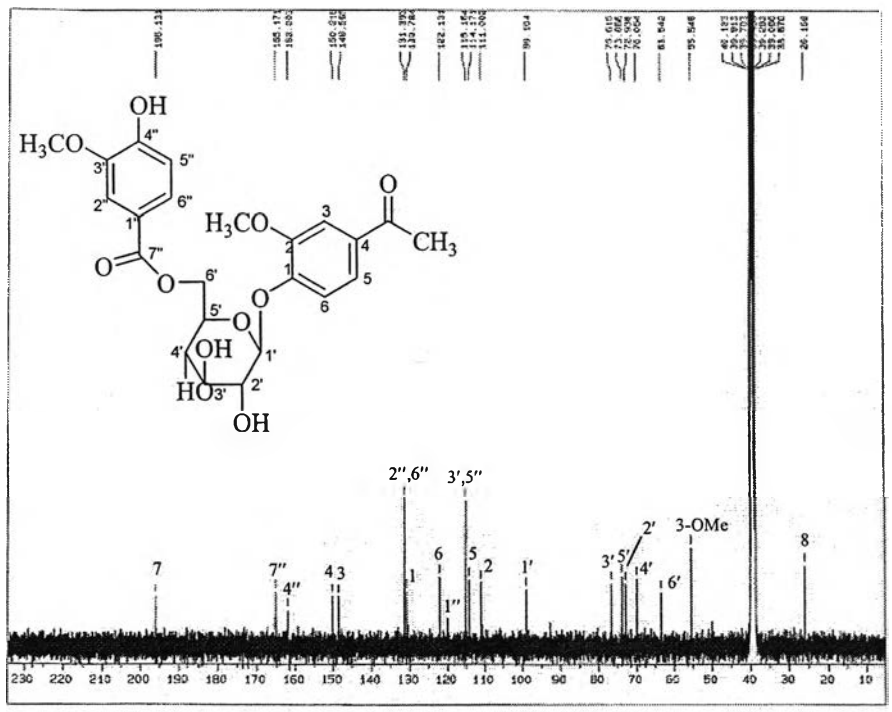

Figure 67 ^{13}C NMR (100.4 MHz) Spectrum of compound BC15 (DMSO-d_6)

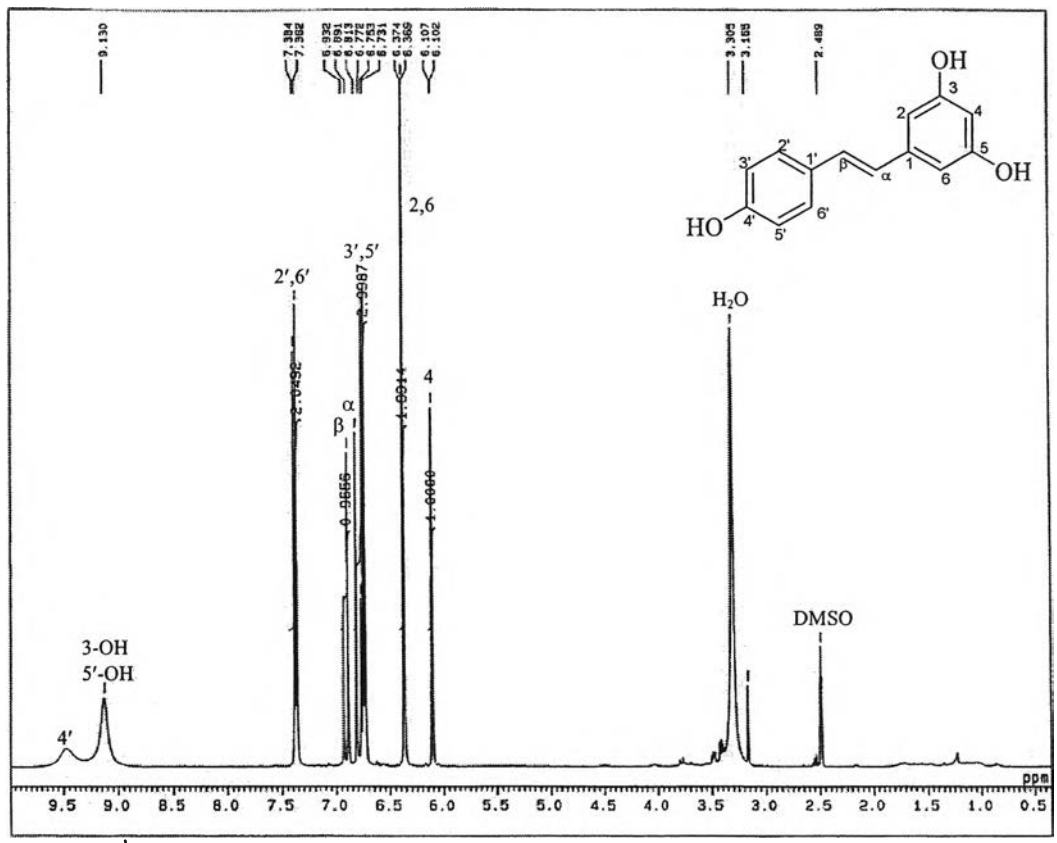

Figure 68 ^{1}H NMR (400 MHz) Spectrum of compound BC16 (DMSO-d_6)

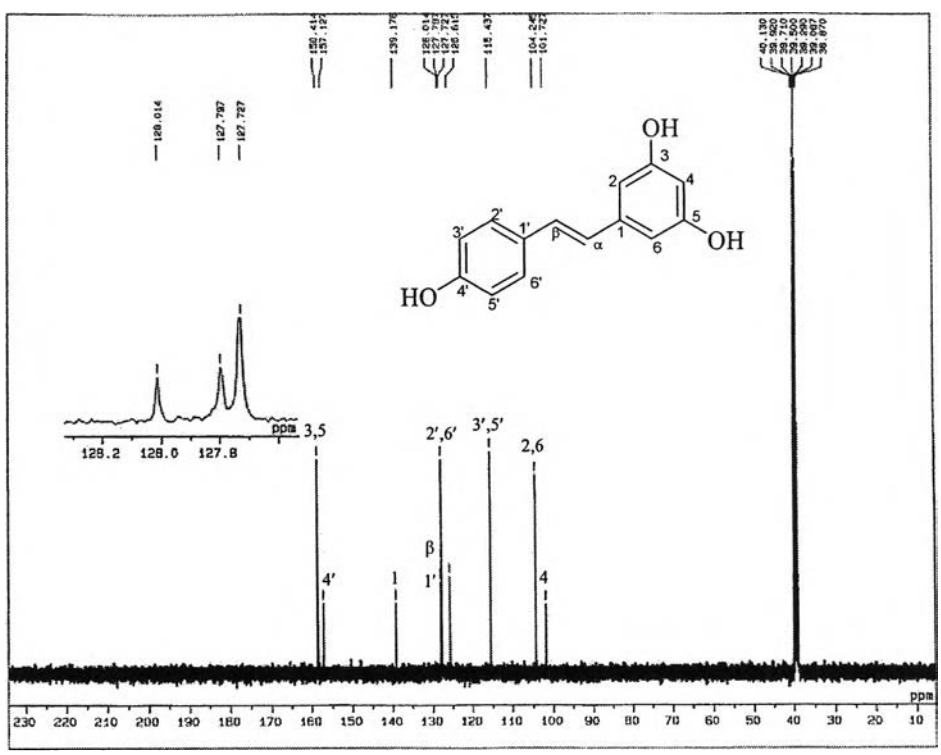

Figure 69 ^{13}C NMR (100.4 MHz) Spectrum of compound BC16 (DMSO-d_6)

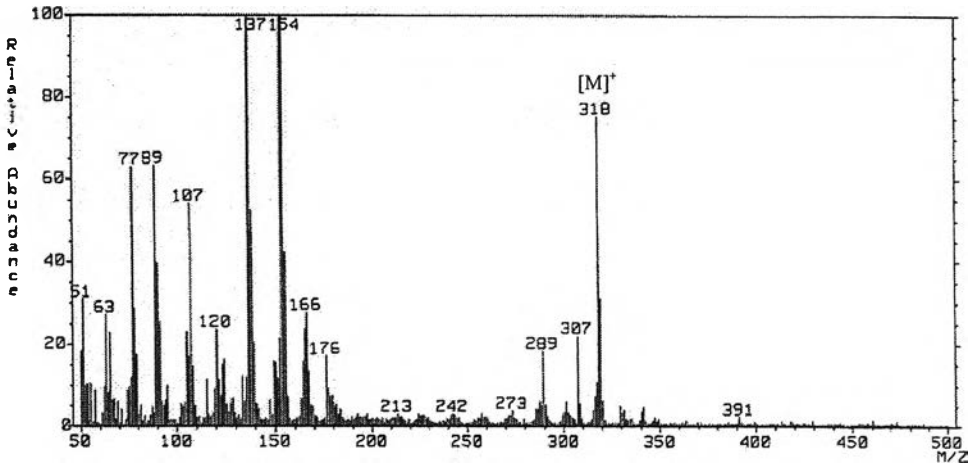

Figure 70 FABMS Spectrum of compound DP1

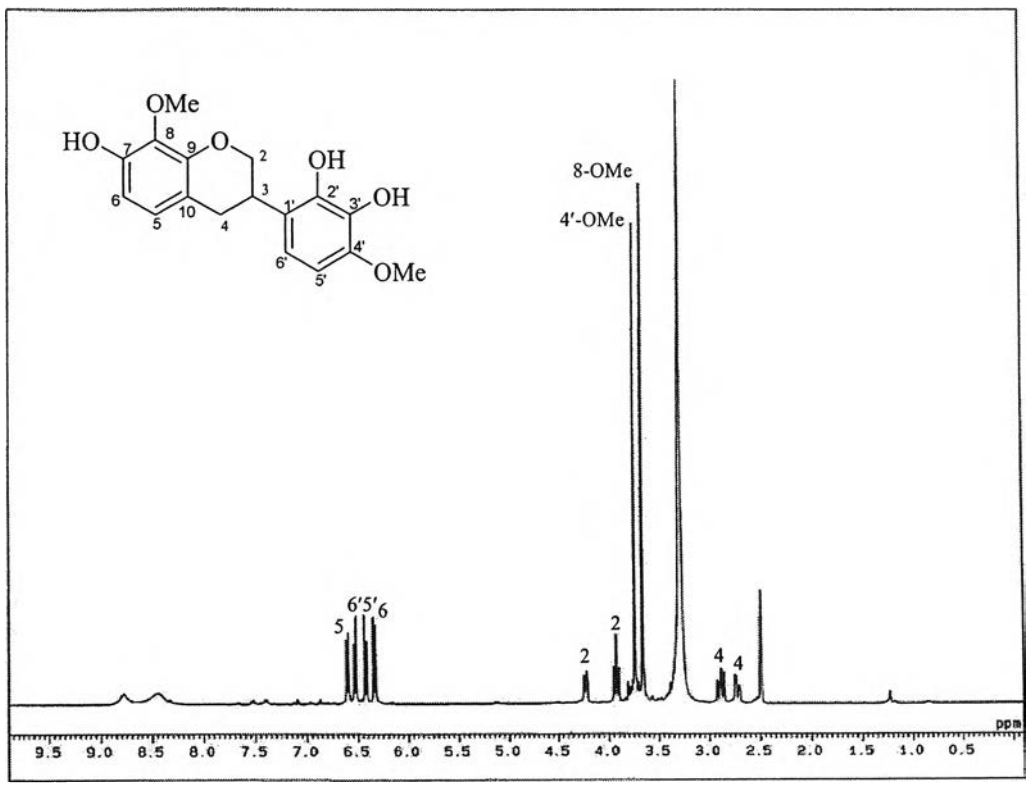

Figure 71 ^{1}H NMR (400 MHz) Spectrum of compound DP1 (DMSO-d_6)

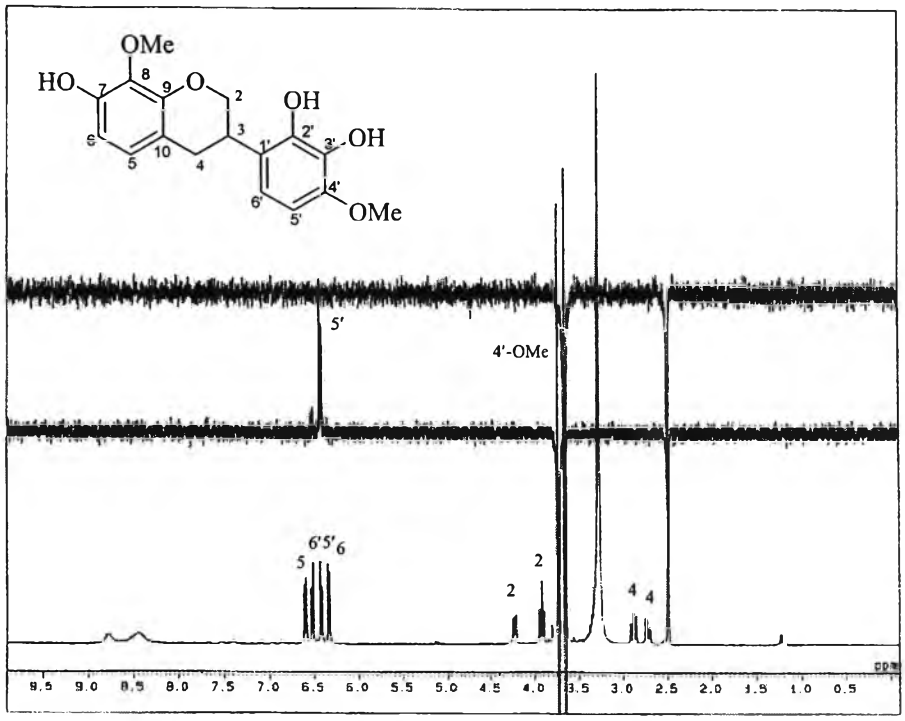

Figure 72 NOE difference Spectrum of compound DP1 (DMSO-d_6)

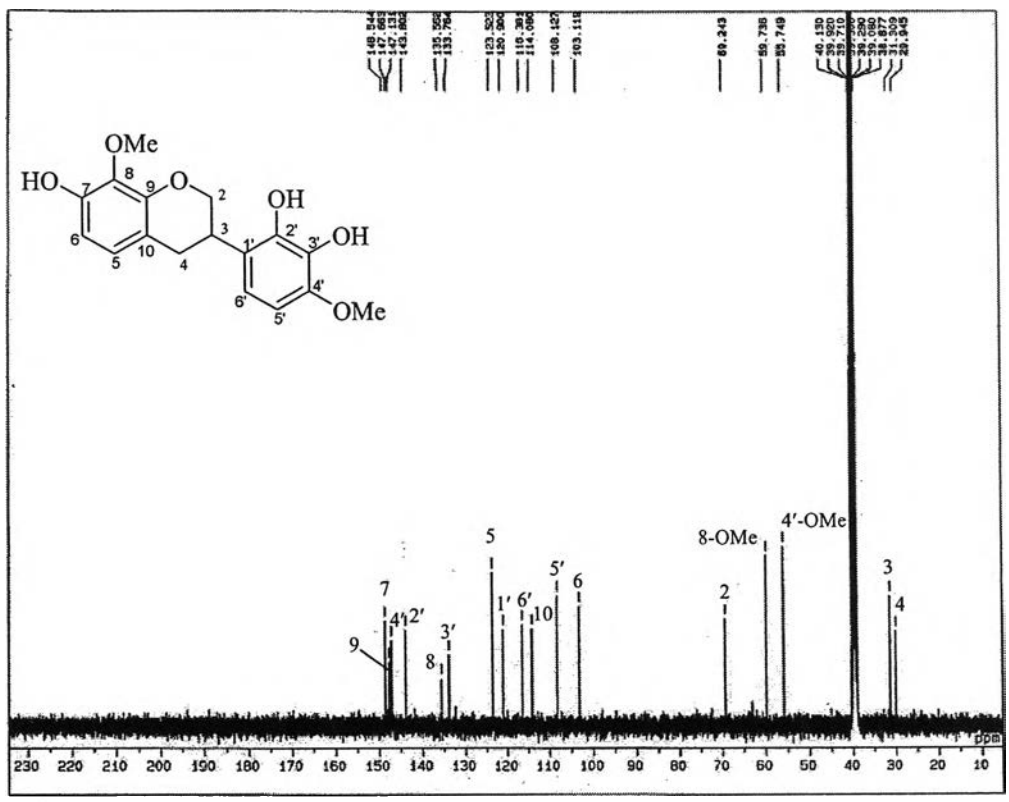

Figure 73 ^{13}C NMR (100.4 MHz) Spectrum of compound DP1 (DMSO-d_6)

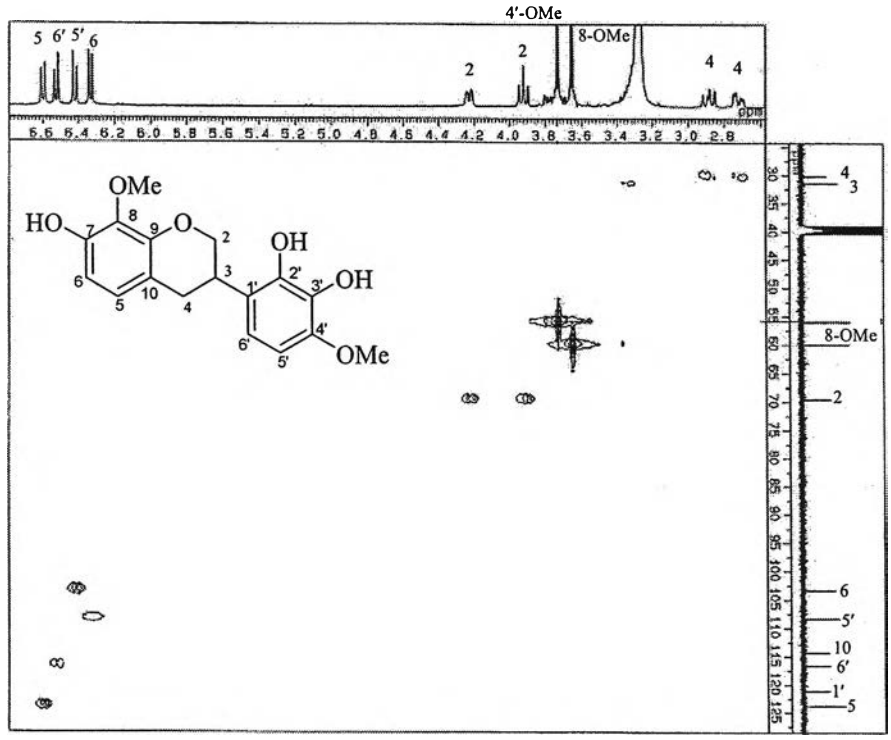

Figure 74 HMQC Spectrum of compound DP1 (DMSO-d_6)

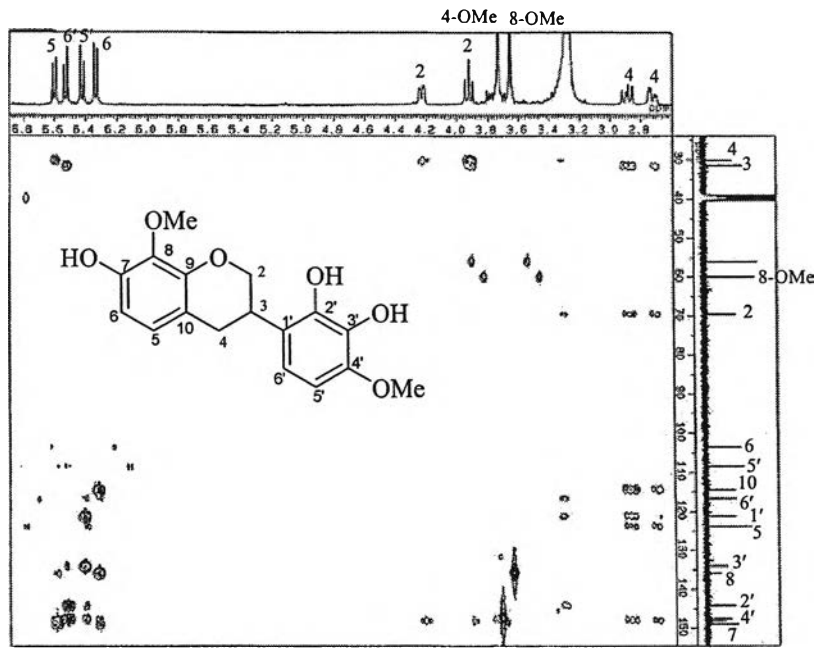

Figure 75 HMBC Spectrum of compound DP1 (DMSO-d_6)

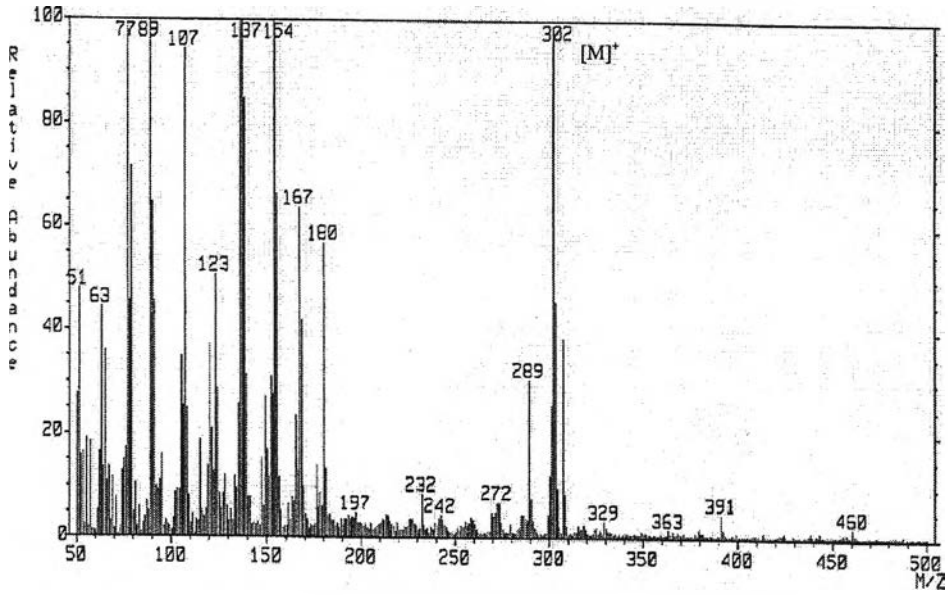

Figure 76 FABMS Spectrum of compound DP2

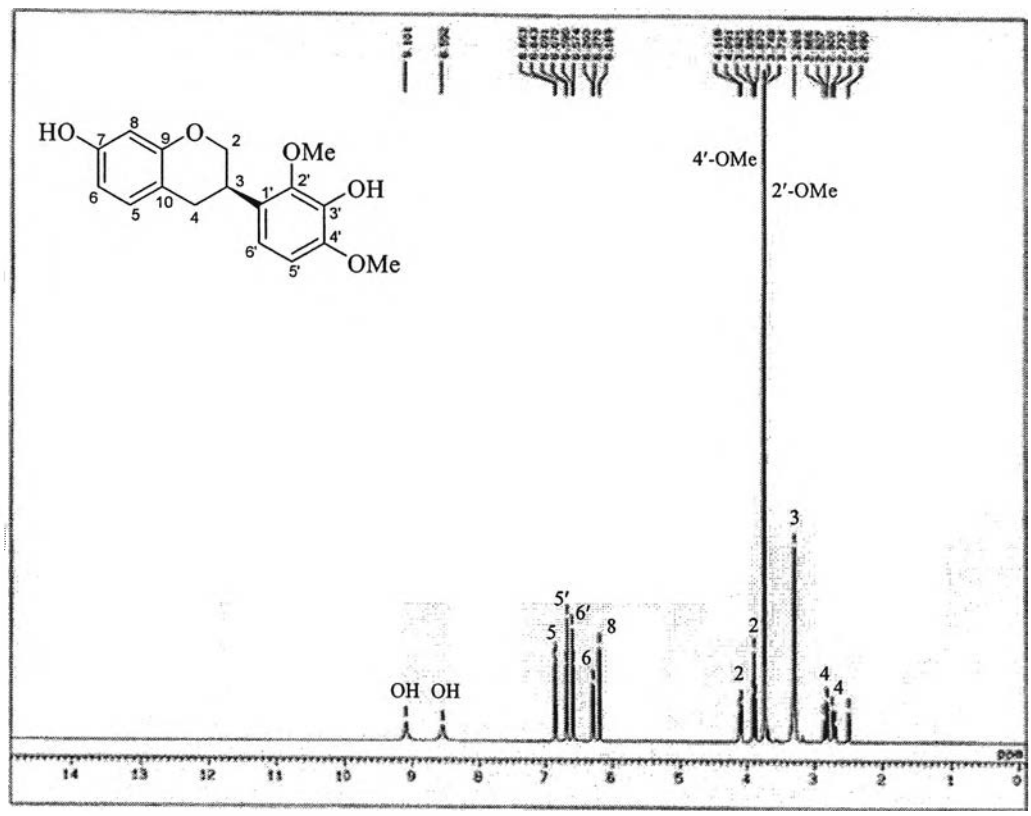

Figure 77 ^{1}H NMR (400 MHz) Spectrum of compound DP2 (DMSO-d_6)

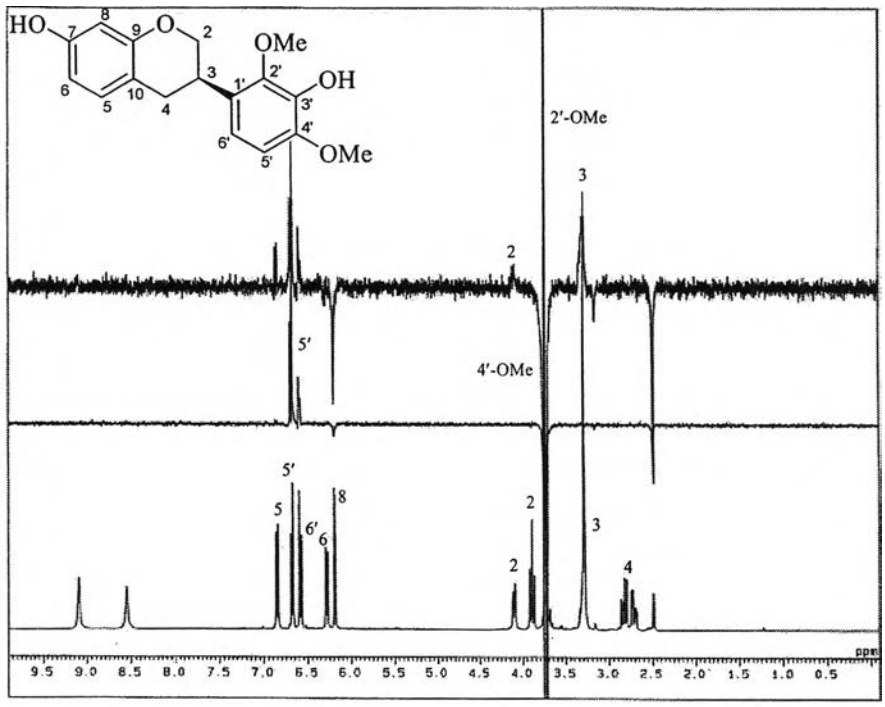

Figure 78 NOE difference Spectrum of compound DP2 (DMSO-d_6)

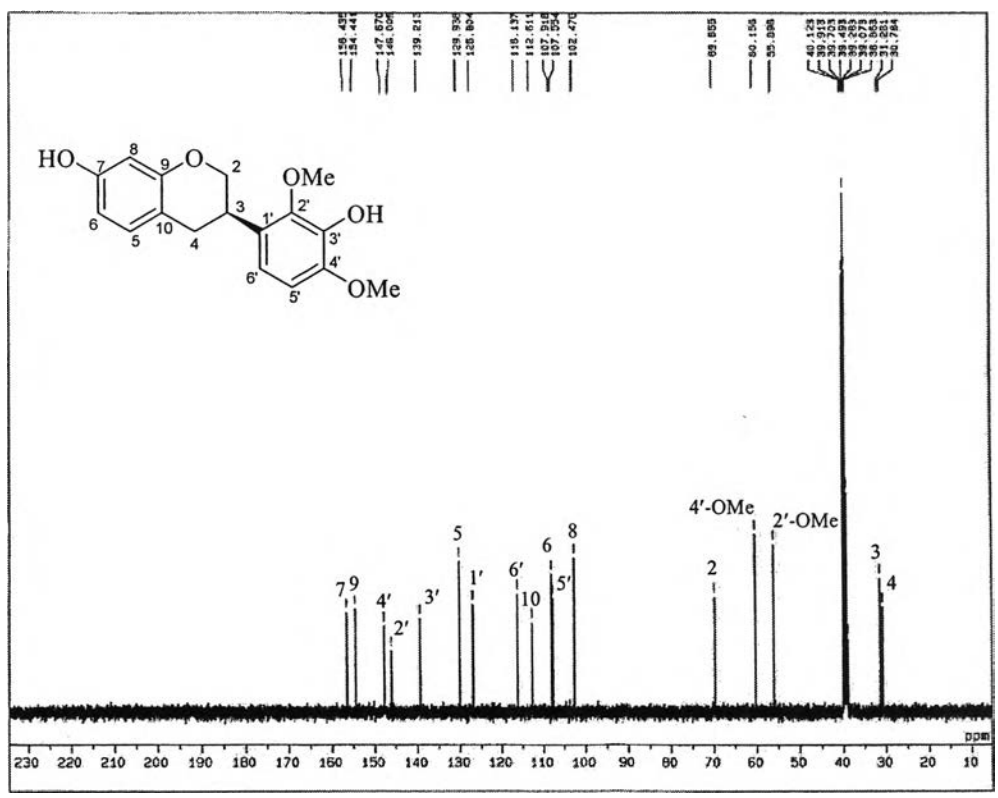

Figure 79 ^{13}C NMR (100.4 MHz) Spectrum of compound DP2 (DMSO-d_6)

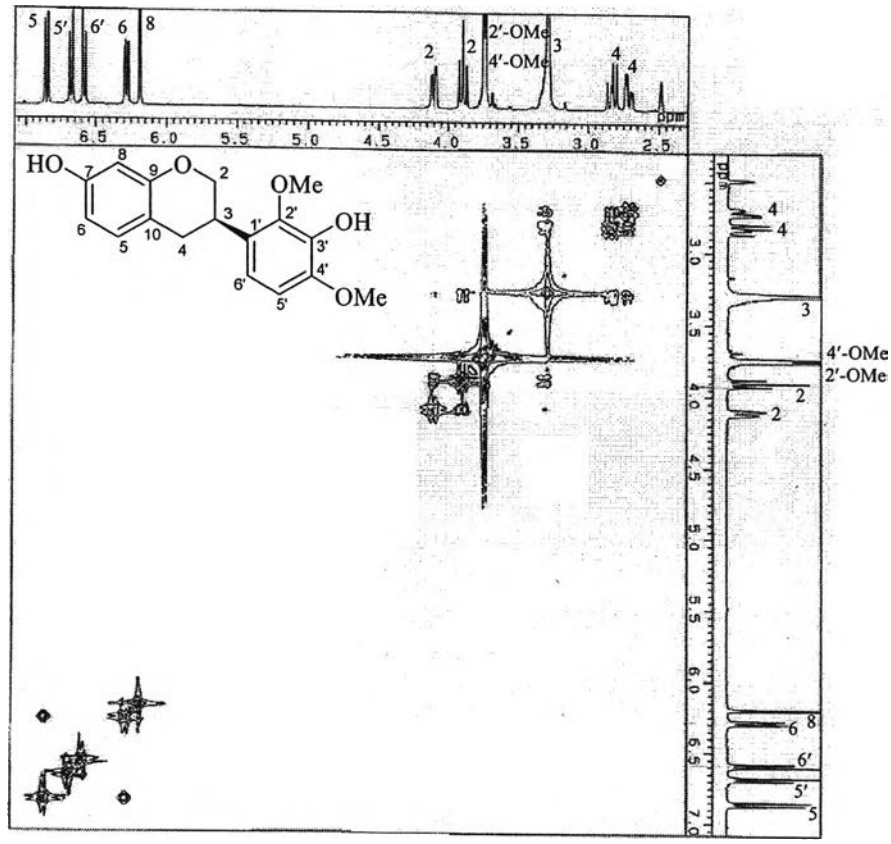

Figure 80 ^{1}H-^{1}H COSY Spectrum of compound DP2 (DMSO-d_6)

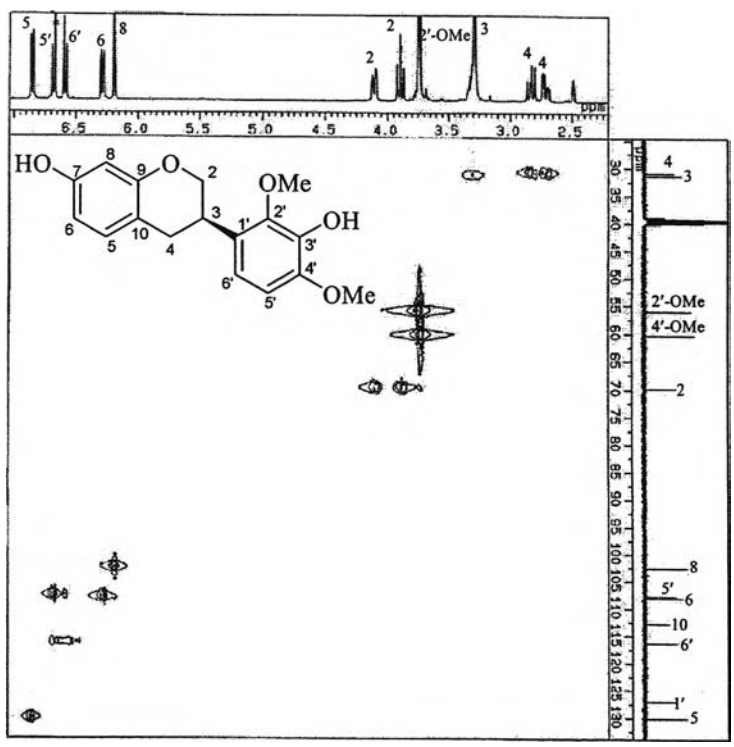

Figure 81 HMQC Spectrum of compound DP2 (DMSO-d_6)

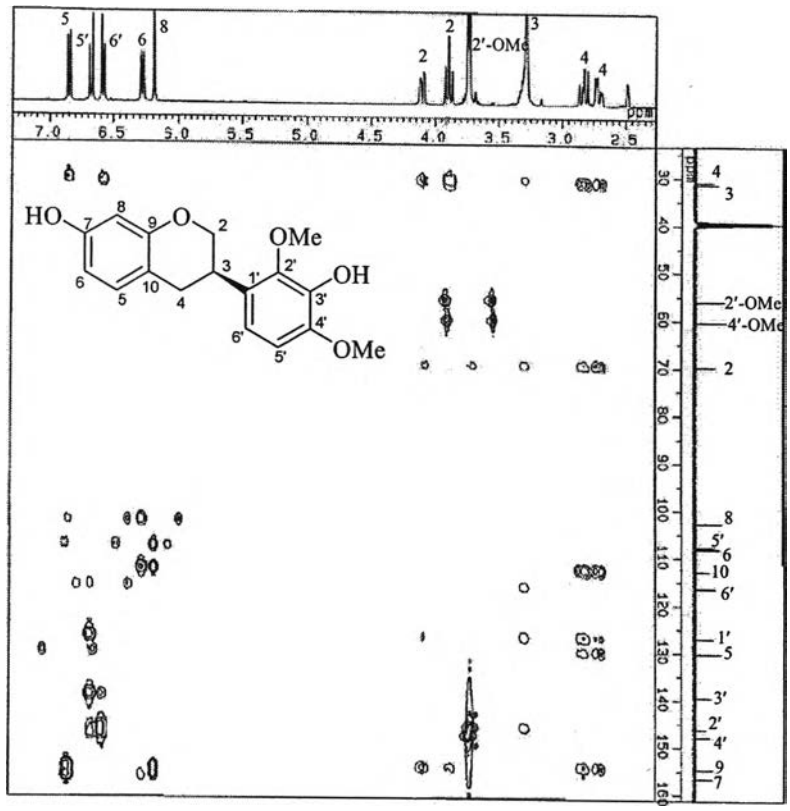

Figure 82 HMBC Spectrum of compound DP2 (DMSO-d_6)

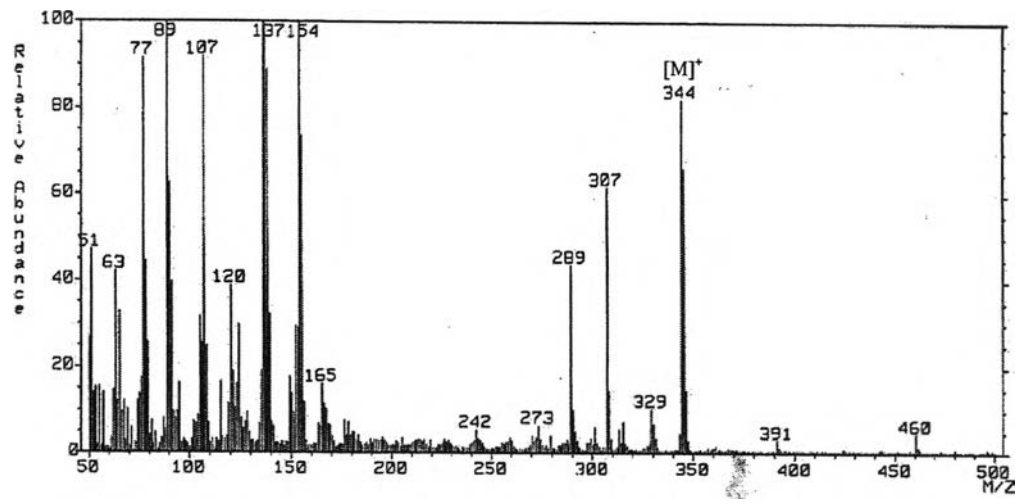

Figure 83 FABMS Spectrum of compound DP3

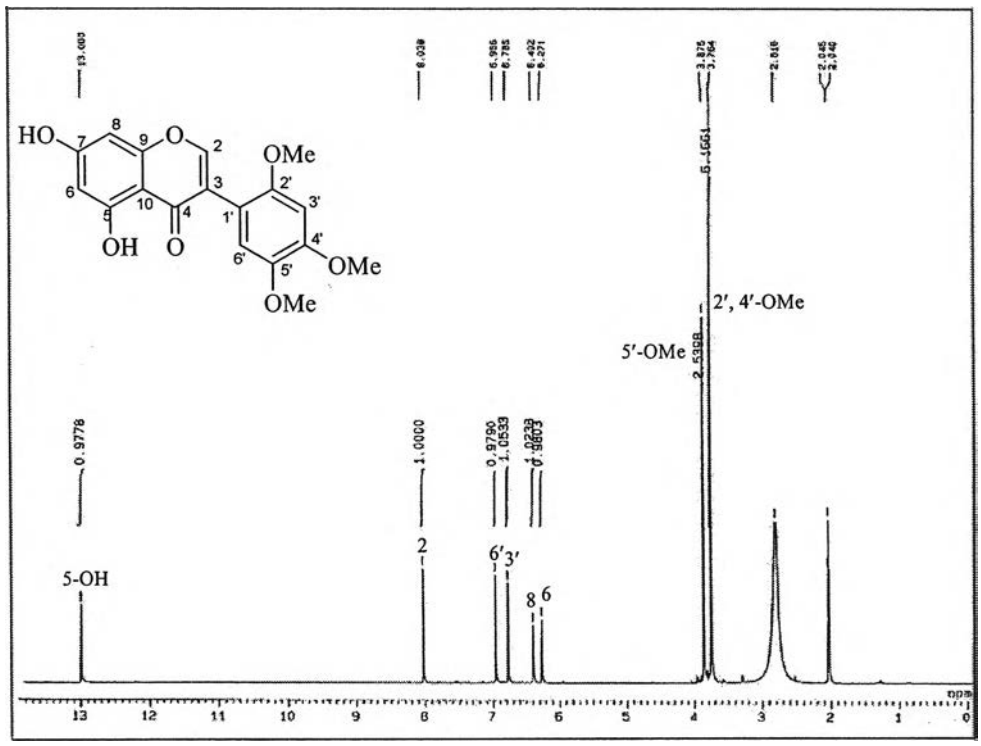

Figure 84 ^{1}H NMR (400 MHz) Spectrum of compound DP3 (acetone-d_6)

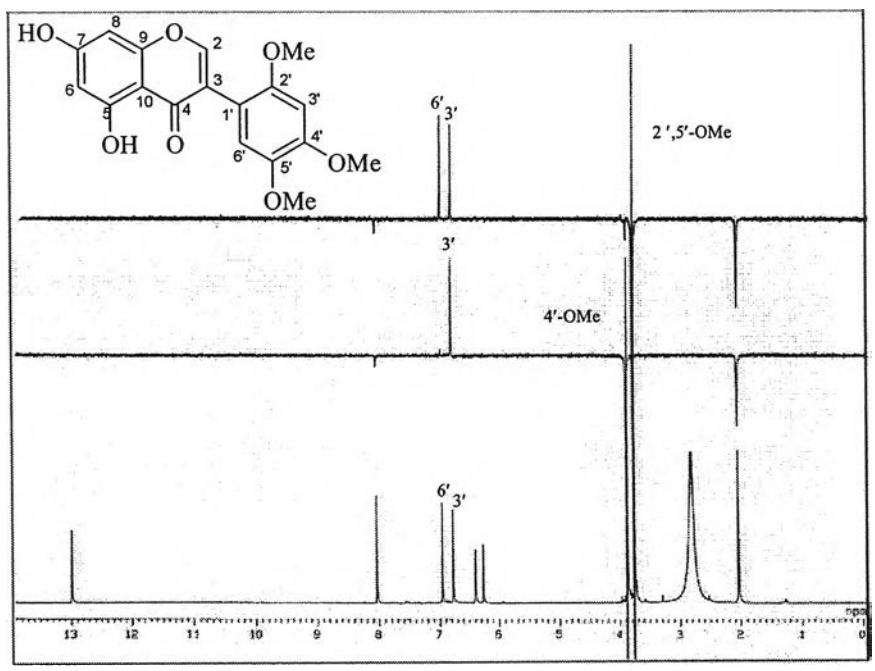

Figure 85 NOE difference Spectrum of compound DP3 (acetone-d_6)

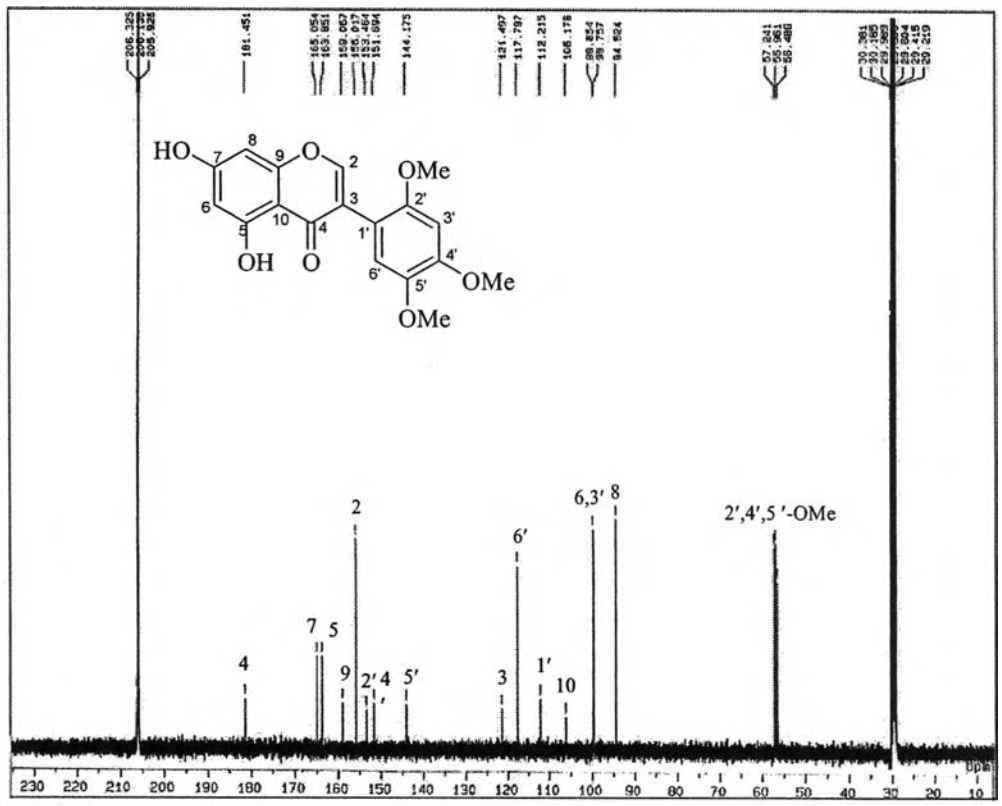

Figure 86 ^{13}C NMR (100.4 MHz) Spectrum of compound DP3 (acetone-d_6)

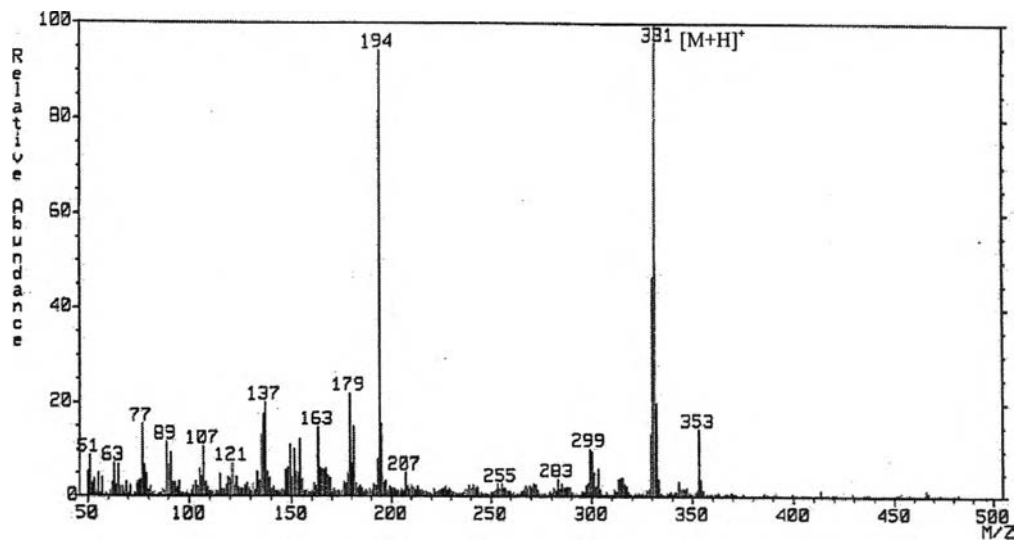

Figure 87 FABMS Spectrum of compound DP4

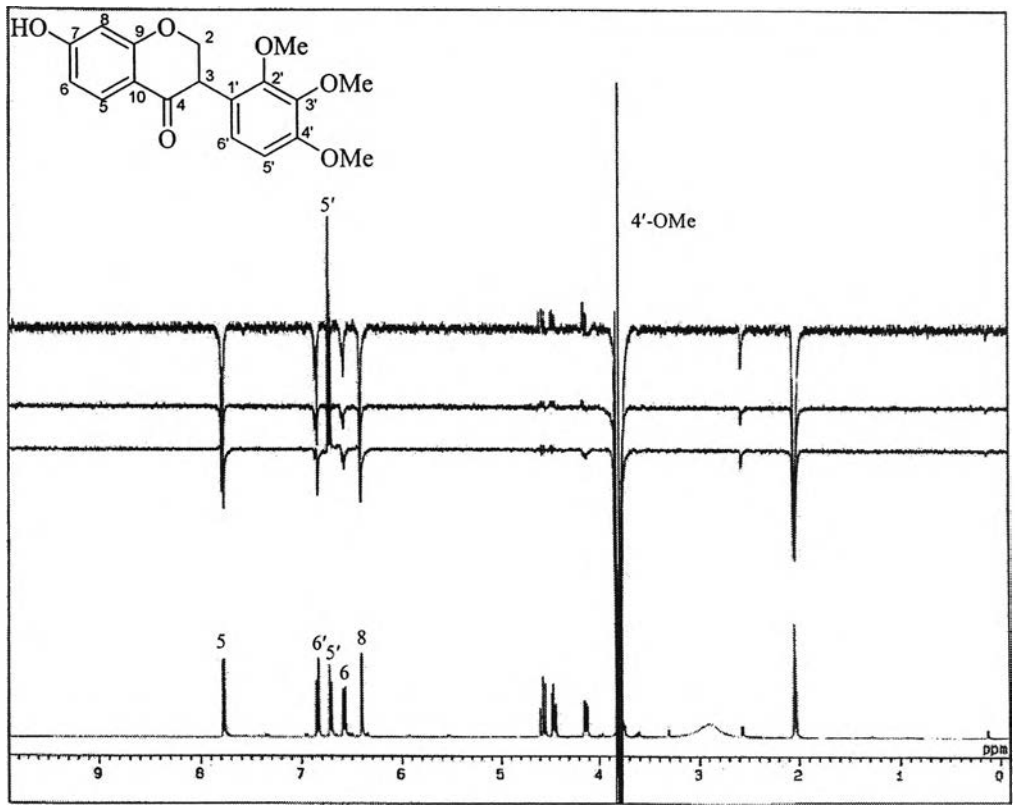

Figure 88 NOE difference Spectrum of compound DP4 (acetone-d_6)

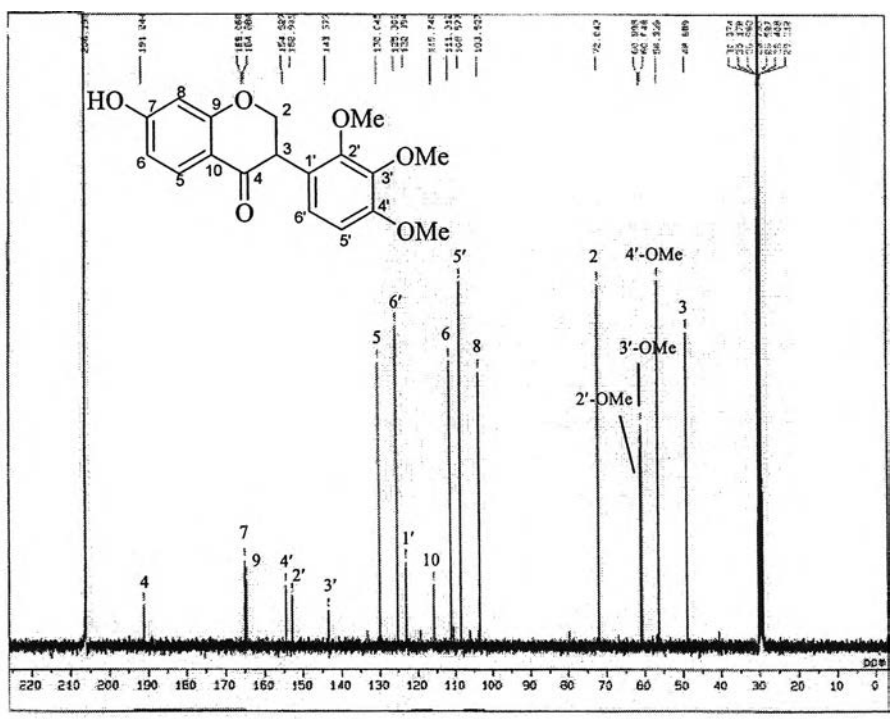

Figure 89 ^{13}C NMR (100.4 MHz) Spectrum of compound DP4 (acetone-d_6)

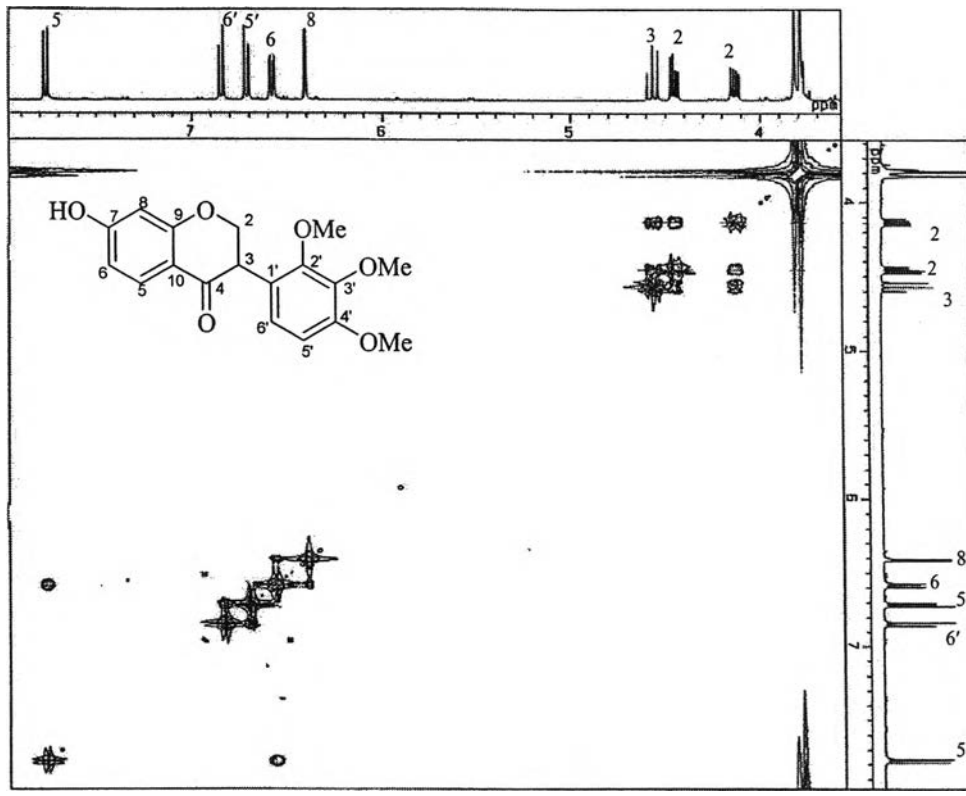

Figure 90 ^{1}H-^{1}H COSY difference Spectrum of compound DP4 (acetone-d_6)

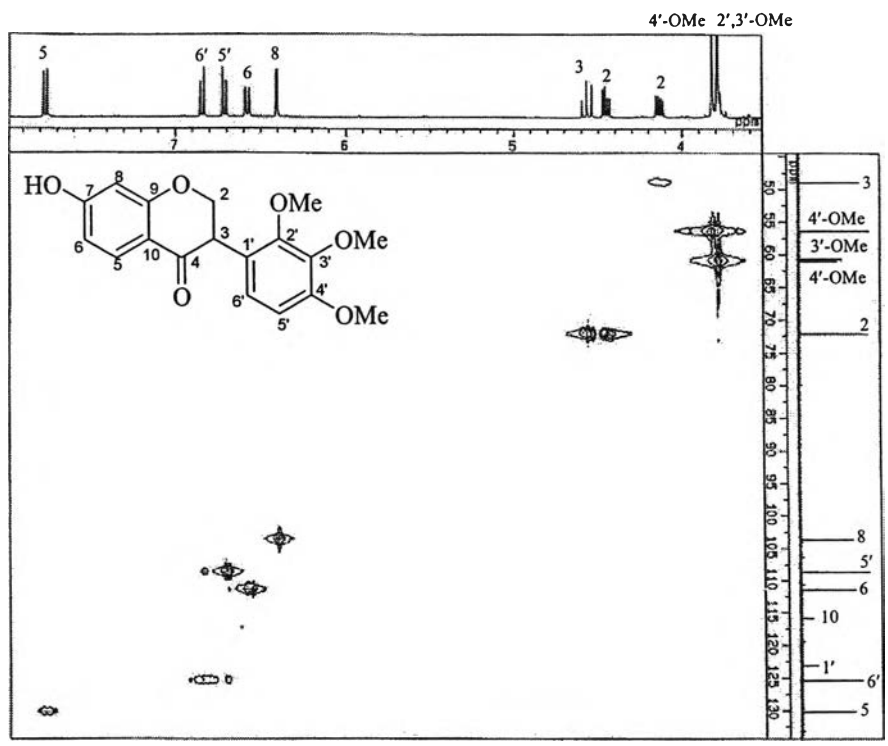

Figure 91 HMQC Spectrum of compound DP4 (acetone-d_6)

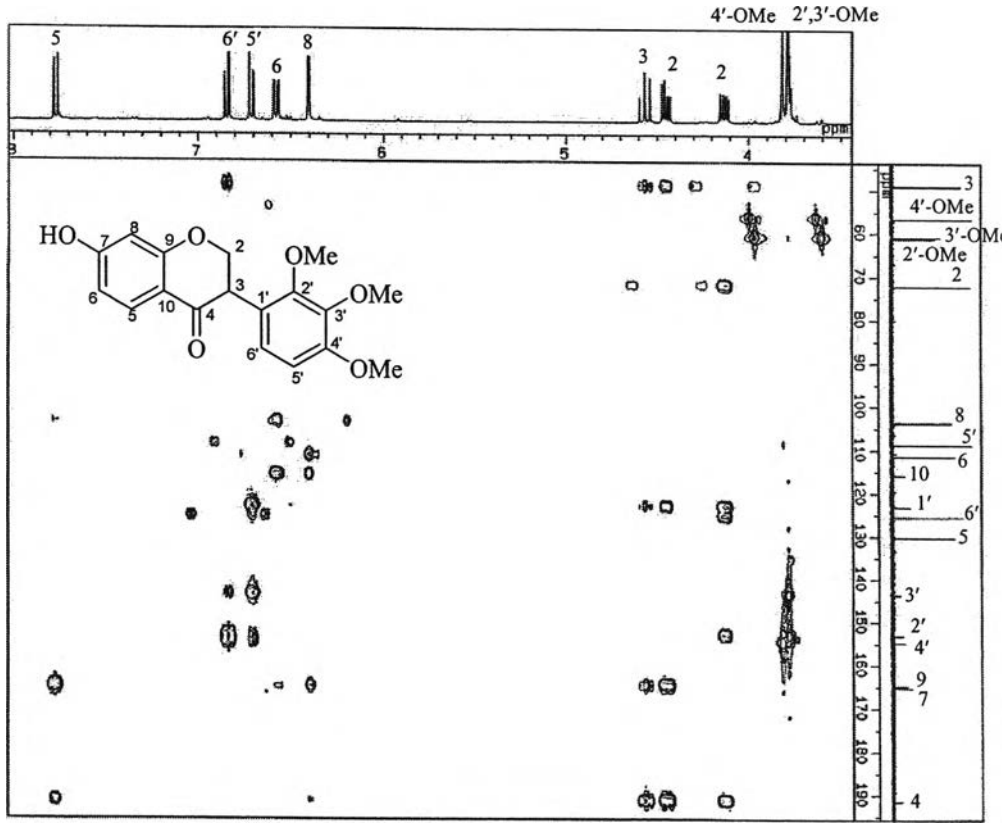

Figure 92 HMBC Spectrum of compound DP4 (acetone-d_6)

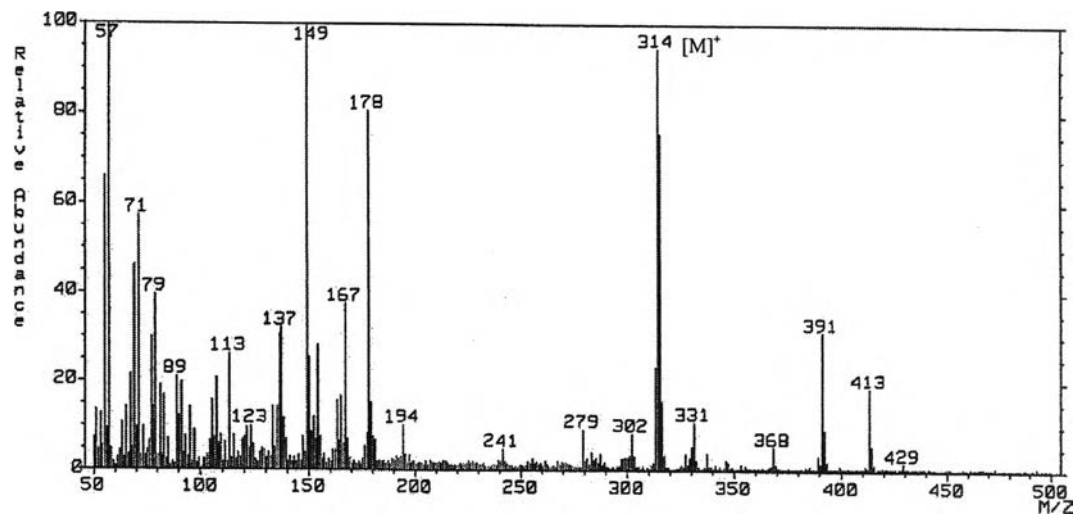

Figure 93 FABMS Spectrum of compound DP5

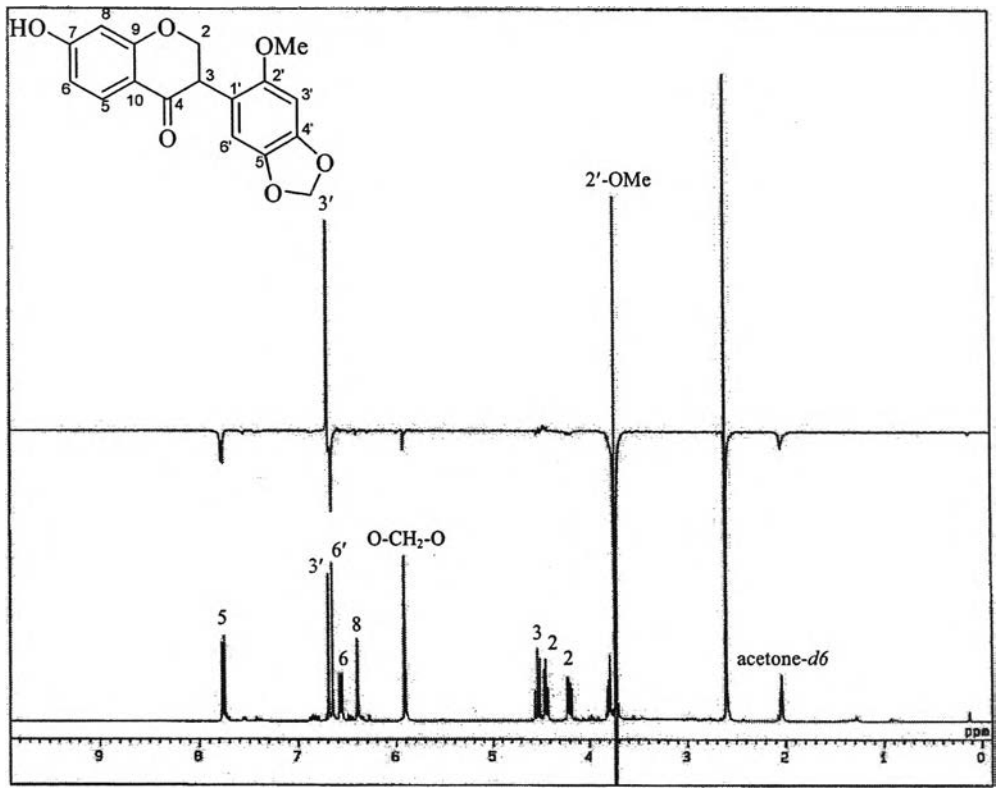

Figure 94 NOE difference Spectrum of compound DP5 (acetone-d_6)

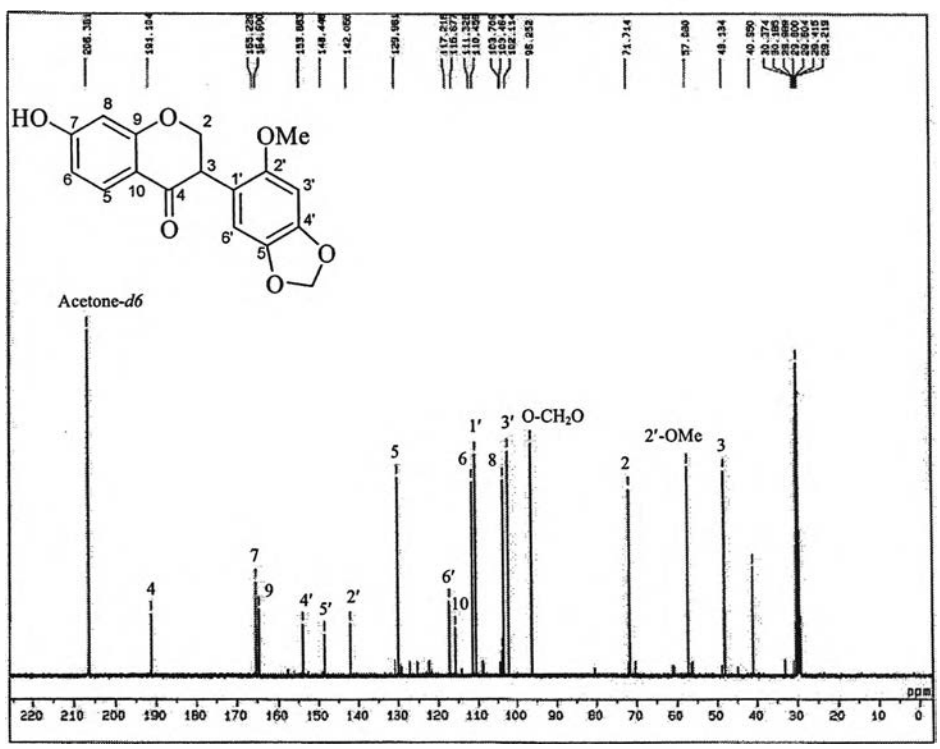

Figure 95 ^{13}C NMR (100.4 MHz) Spectrum of compound DP5 (acetone-d_6)

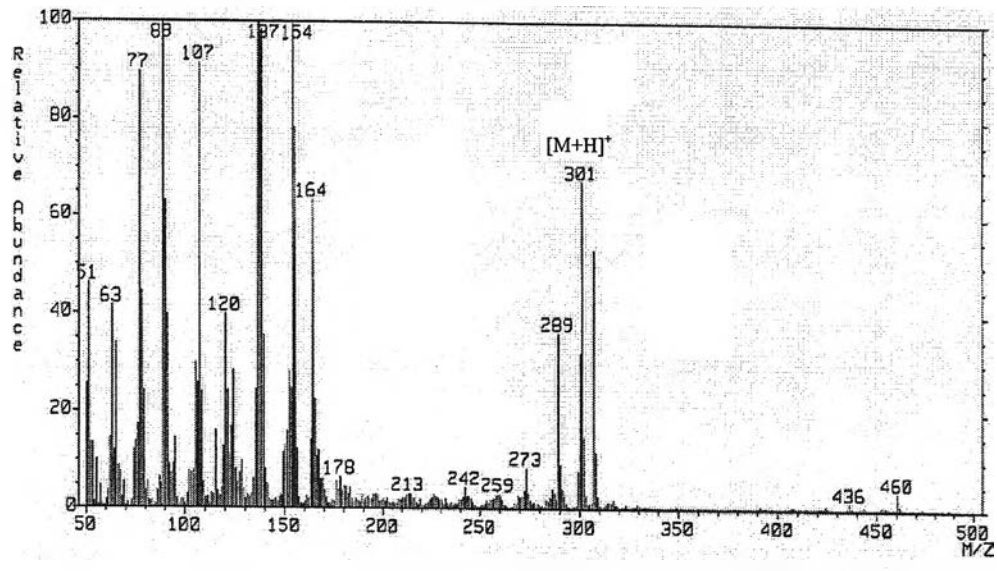

Figure 96 FABMS Spectrum of compound DP6

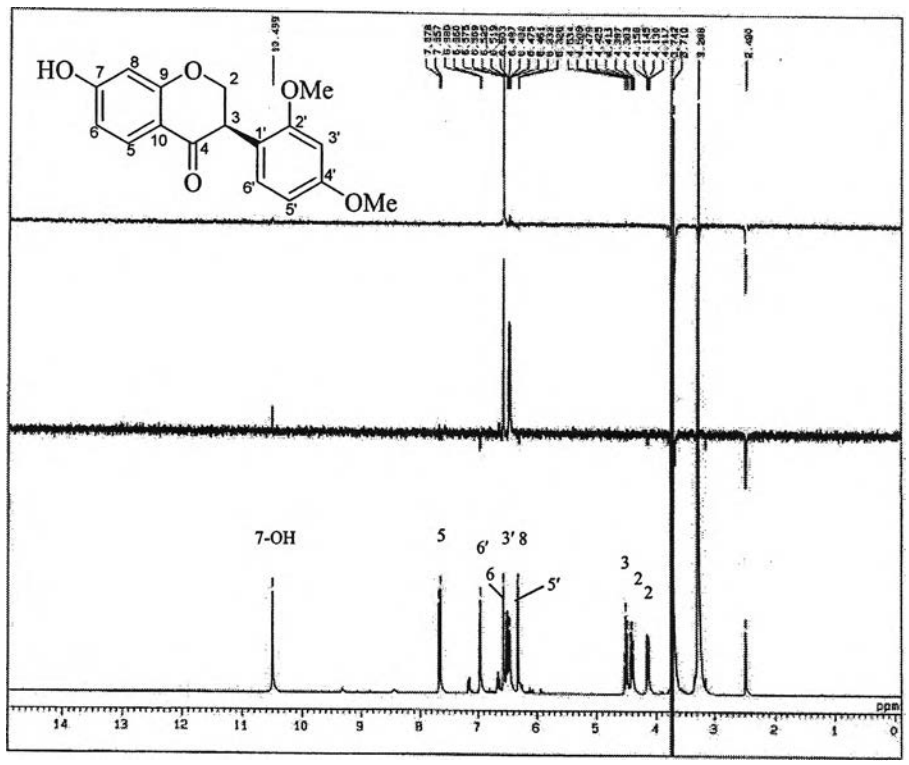

Figure 97 NOE difference Spectrum of compound DP6 (DMSO-d_6)

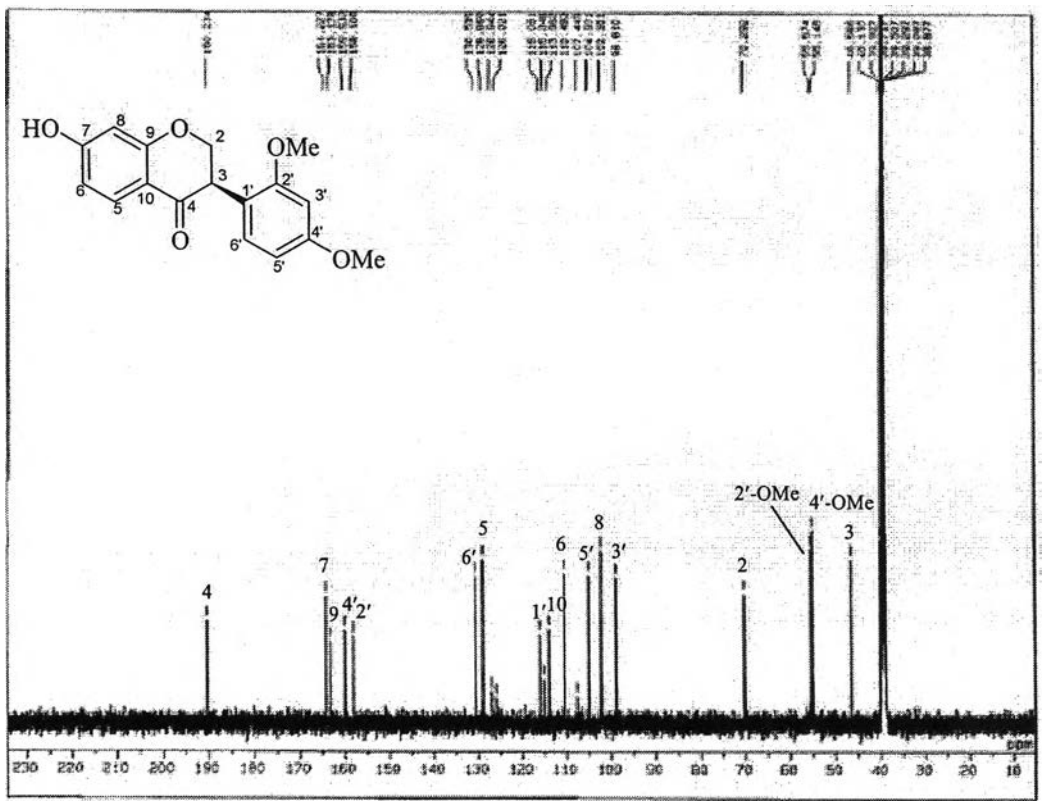

Figure 98 ^{13}C NMR (100.4 MHz) Spectrum of compound DP6 (DMSO-d_6)

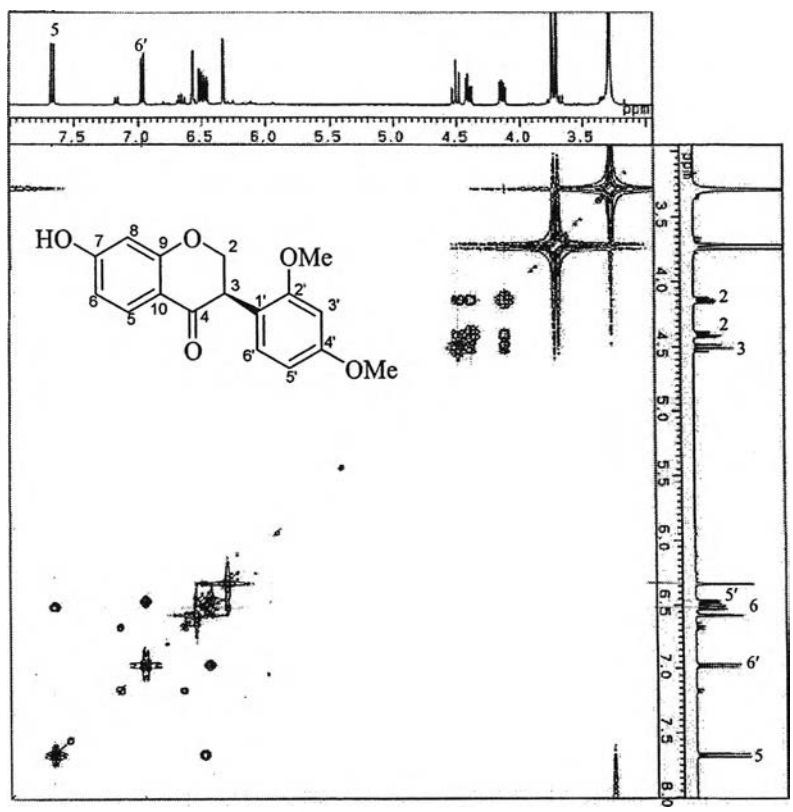

Figure 99 ^{1}H-^{1}H COSY Spectrum of compound DP6 (DMSO-d_6)

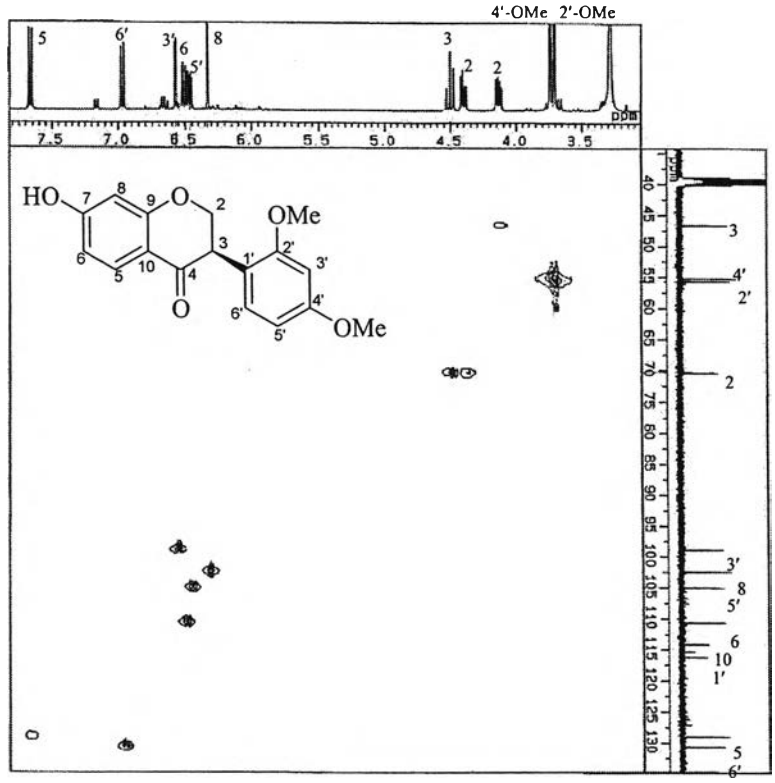

Figure 100 HMQC Spectrum of compound DP6 (DMSO-d_6)

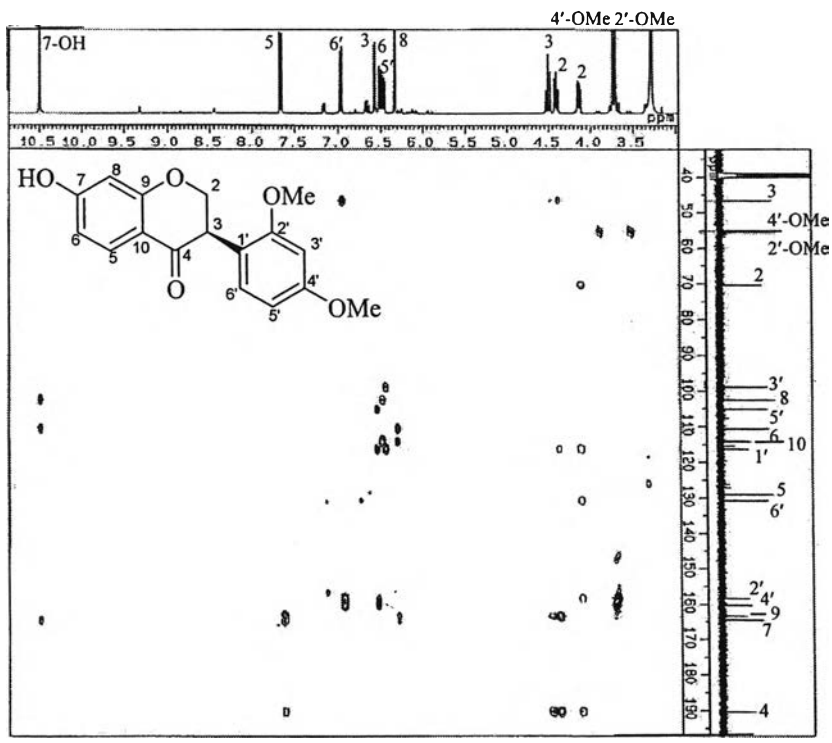

Figure 101 HMBC Spectrum of compound DP6 (DMSO-d_6)

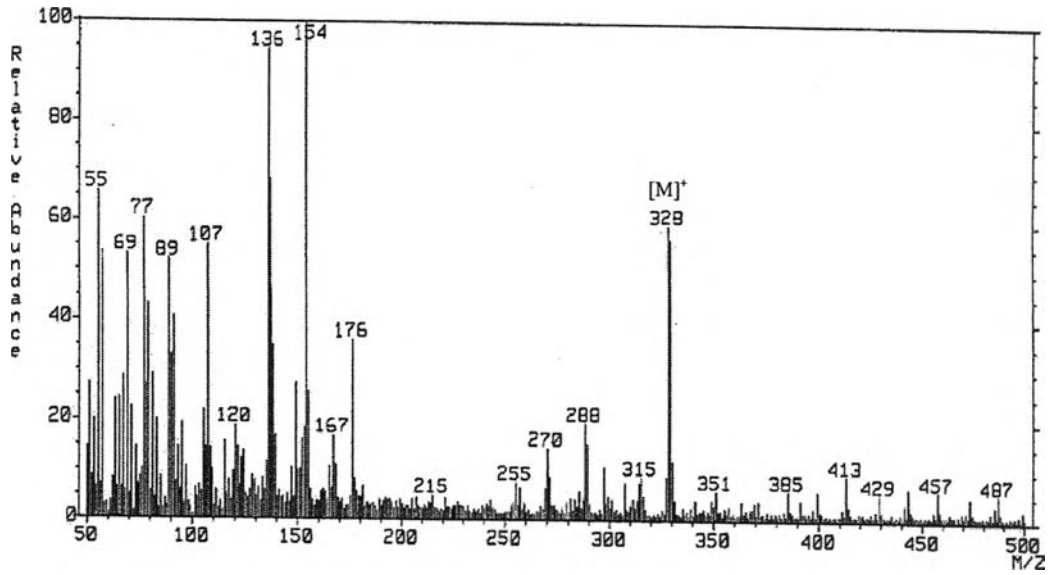

Figure 102 FABMS Spectrum of compound DP7

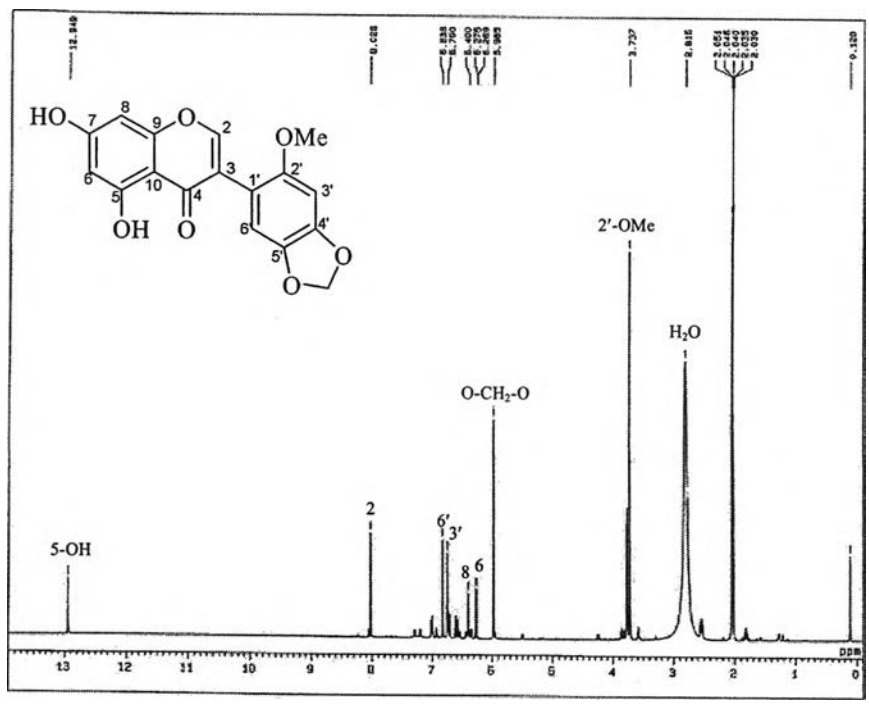

Figure 103 ^{1}H NMR (400 MHz) Spectrum of compound DP7 (acetone-d_6)

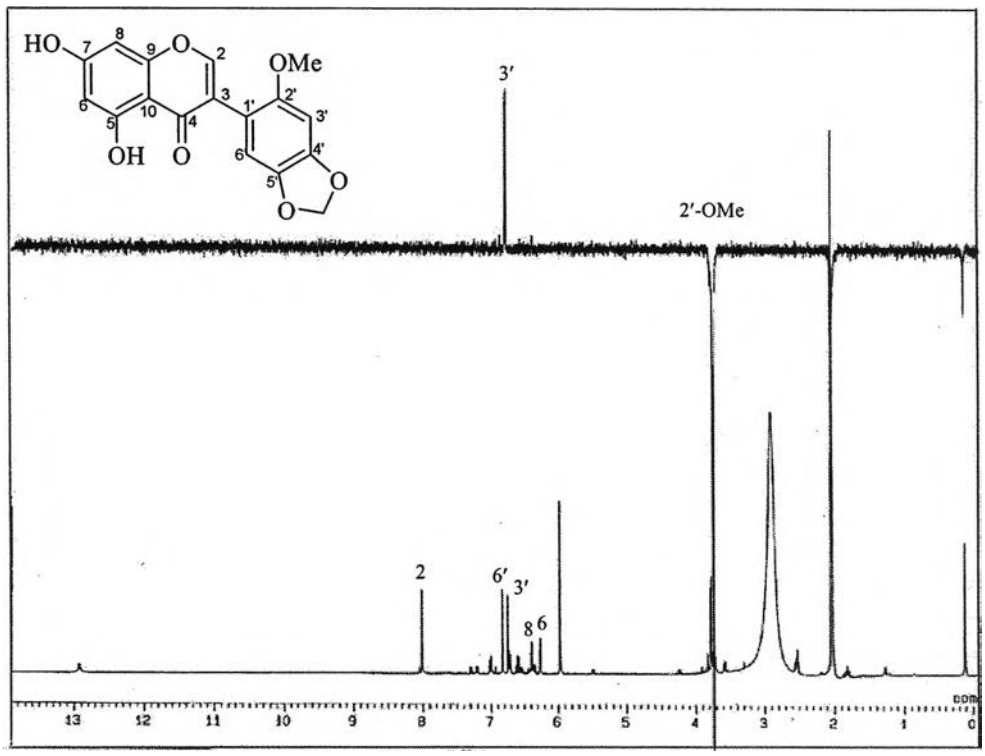

Figure 104 NOE difference Spectrum of compound DP7 (acetone-d_6)

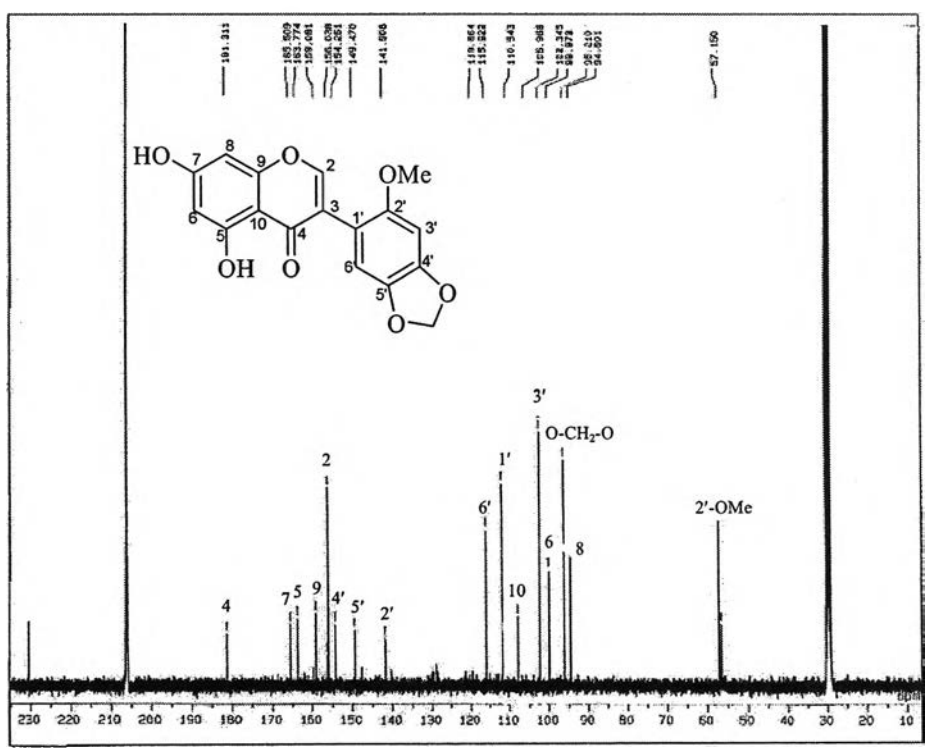

Figure 105 ^{13}C NMR (100.4 MHz) Spectrum of compound DP7 (acetone-d_6)

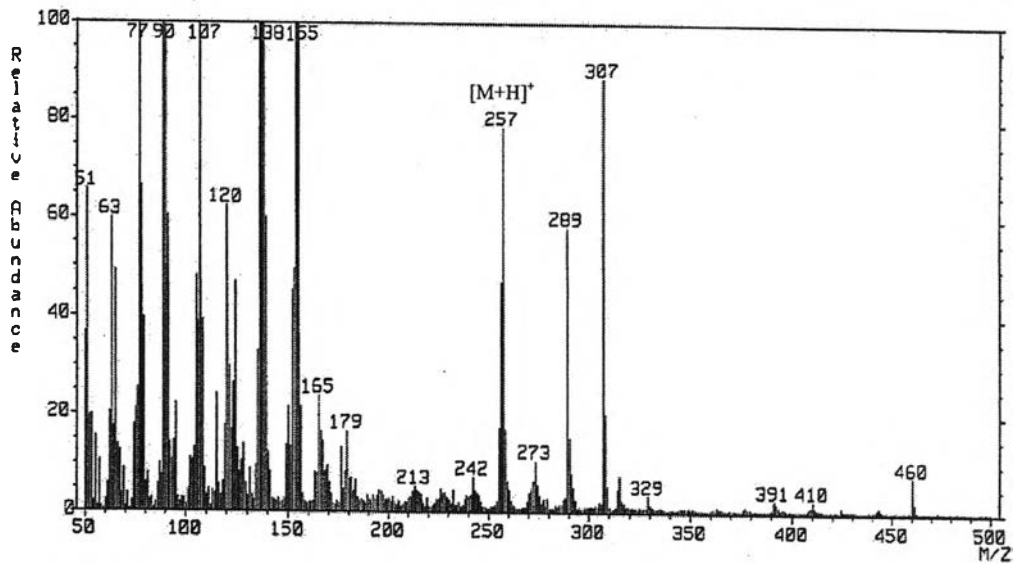

Figure 106 FABMS Spectrum of compound DP8

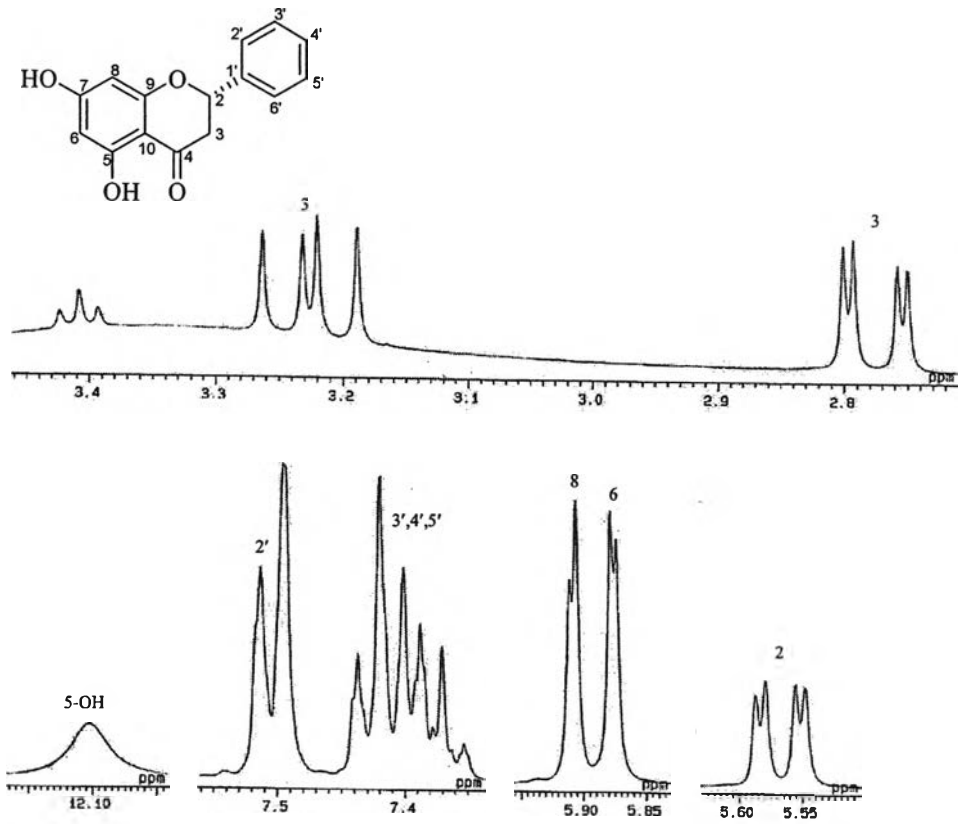

Figure107 ^{1}H NMR (400 MHz) Spectrum of compound DP8 (DMSO-d_6)

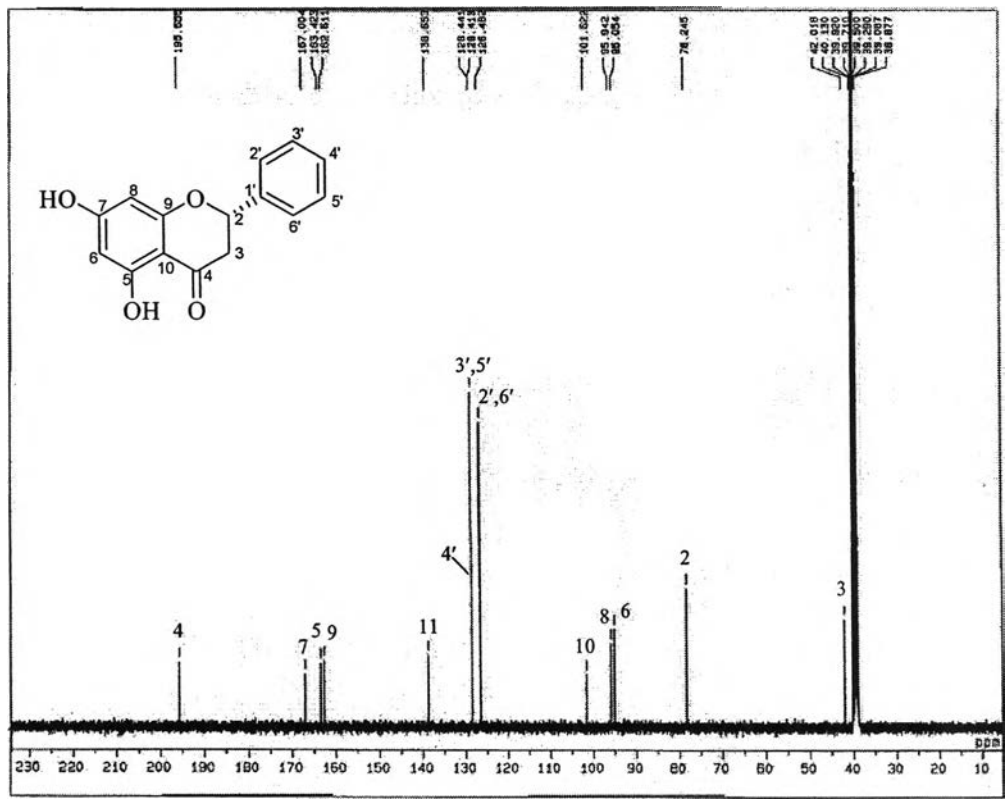

Figure 108 ^{13}C NMR (100.4 MHz) Spectrum of compound DP8 (DMSO-d_6)

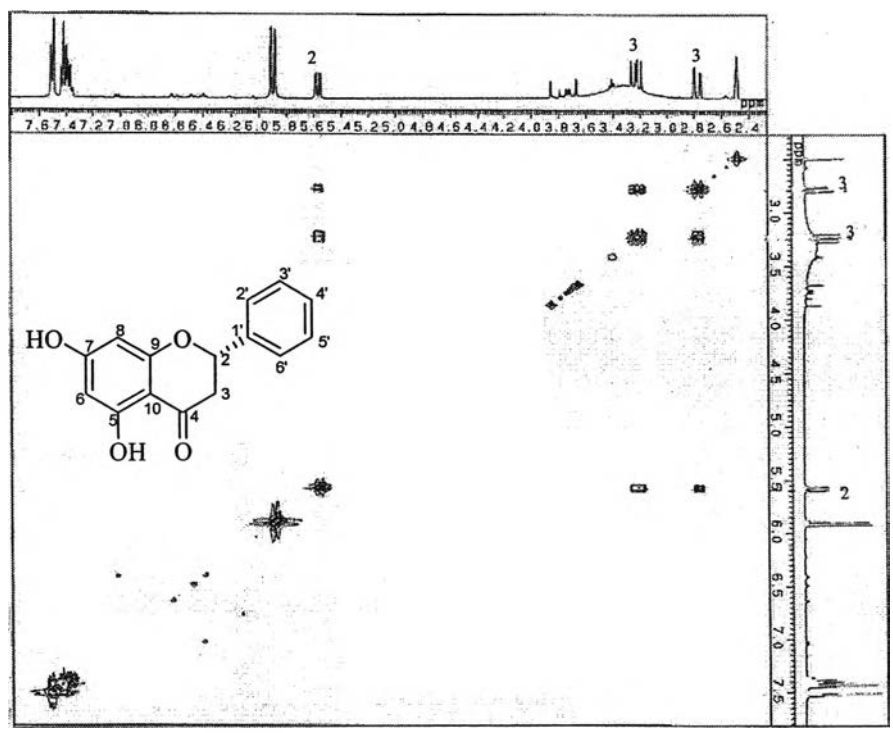

Figure 109 ^{1}H-^{1}H COSY Spectrum of compound DP8 (DMSO-d_6)

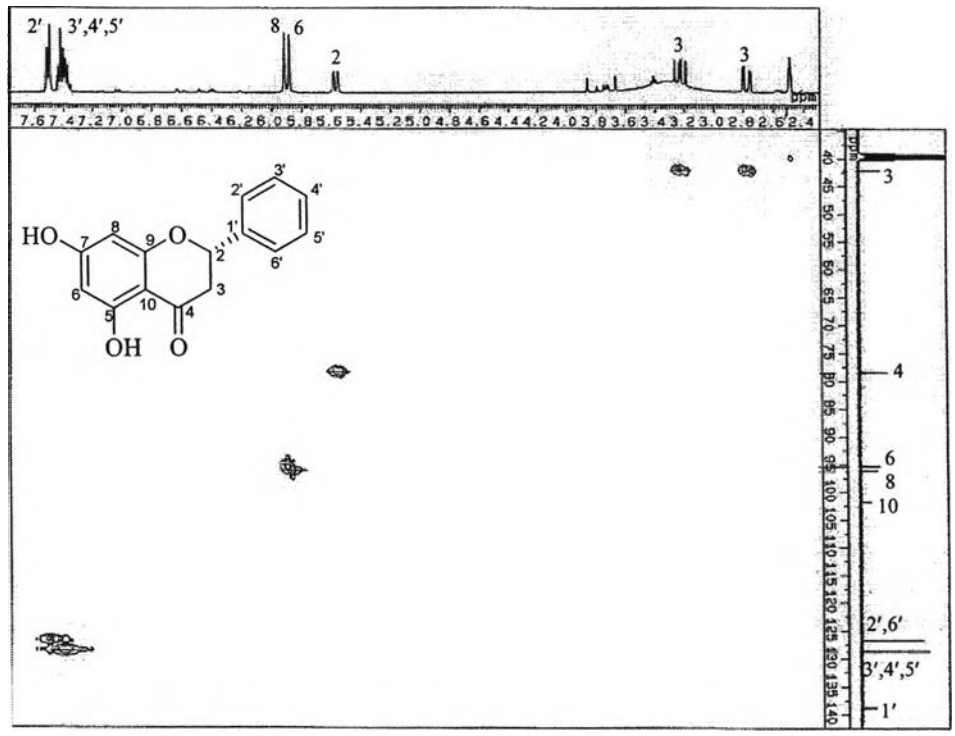

Figure 110 HMQC Spectrum of compound DP8 (DMSO-d_6)

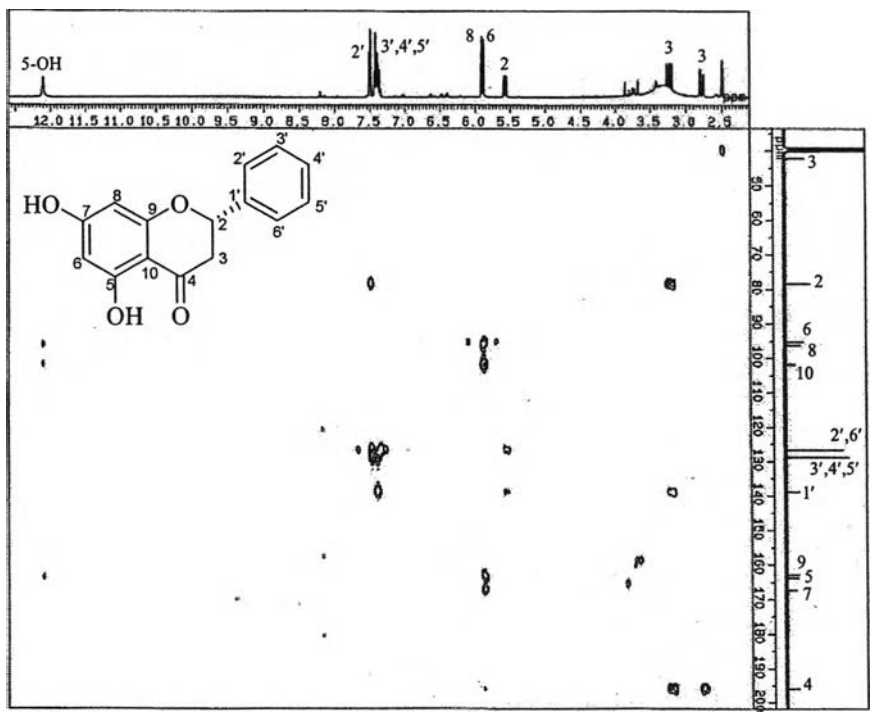

Figure 111 HMBC Spectrum of compound DP8 (DMSO-d_6)

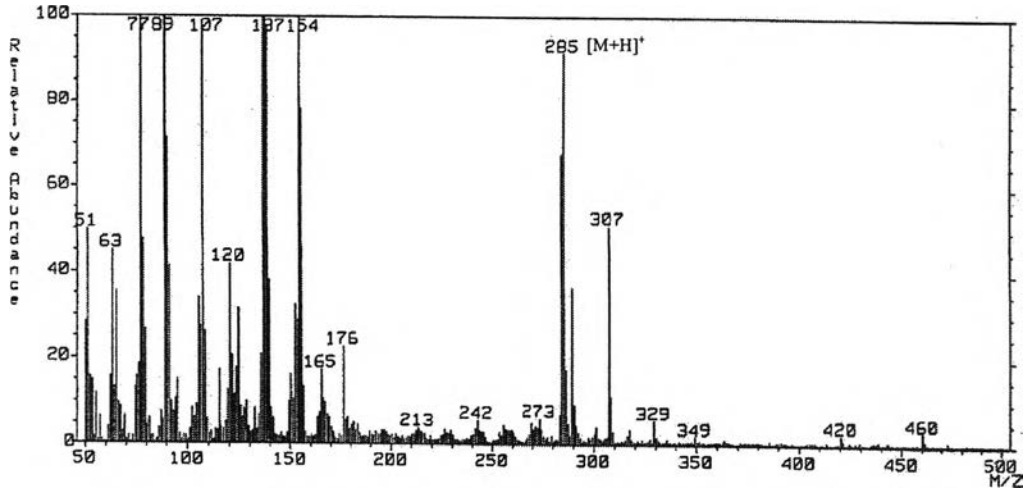

Figure 112 FABMS Spectrum of compound DP9

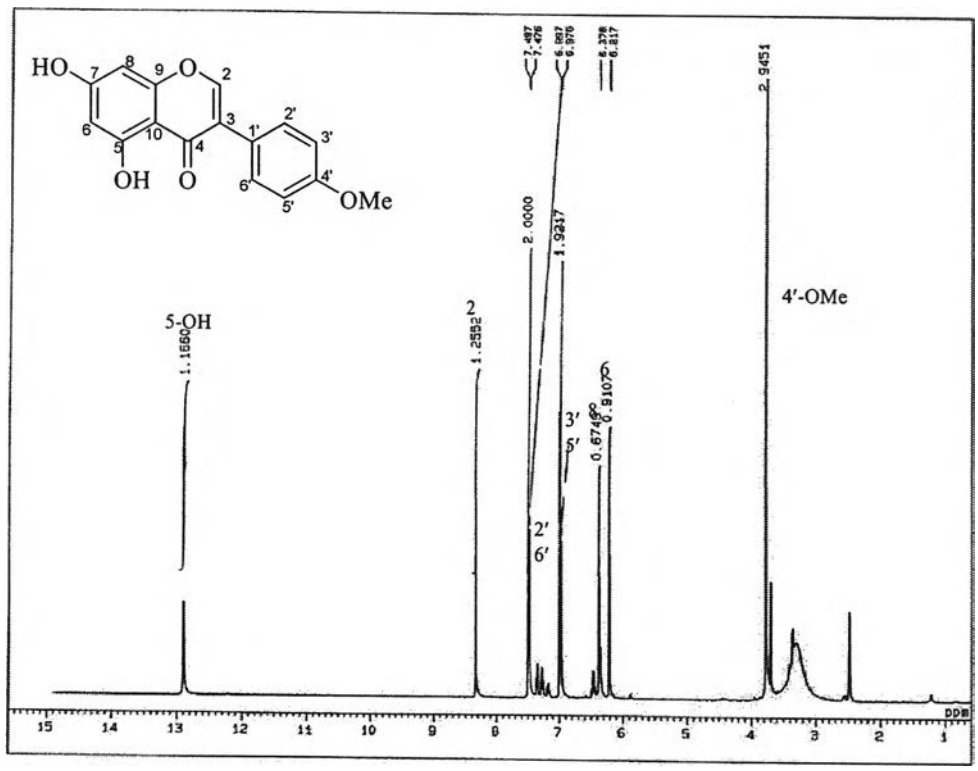

Figure113 ^{1}H NMR (400 MHz) Spectrum of compound DP9 (DMSO-d_6)

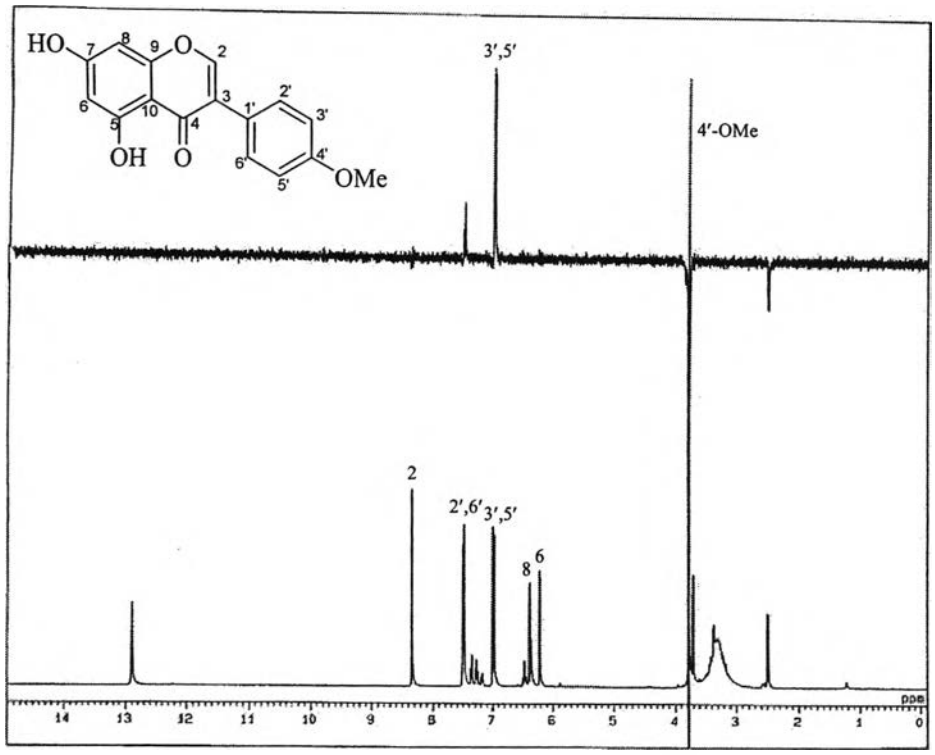

Figure 114 NOE difference Spectrum of compound DP9 (DMSO-d_6)

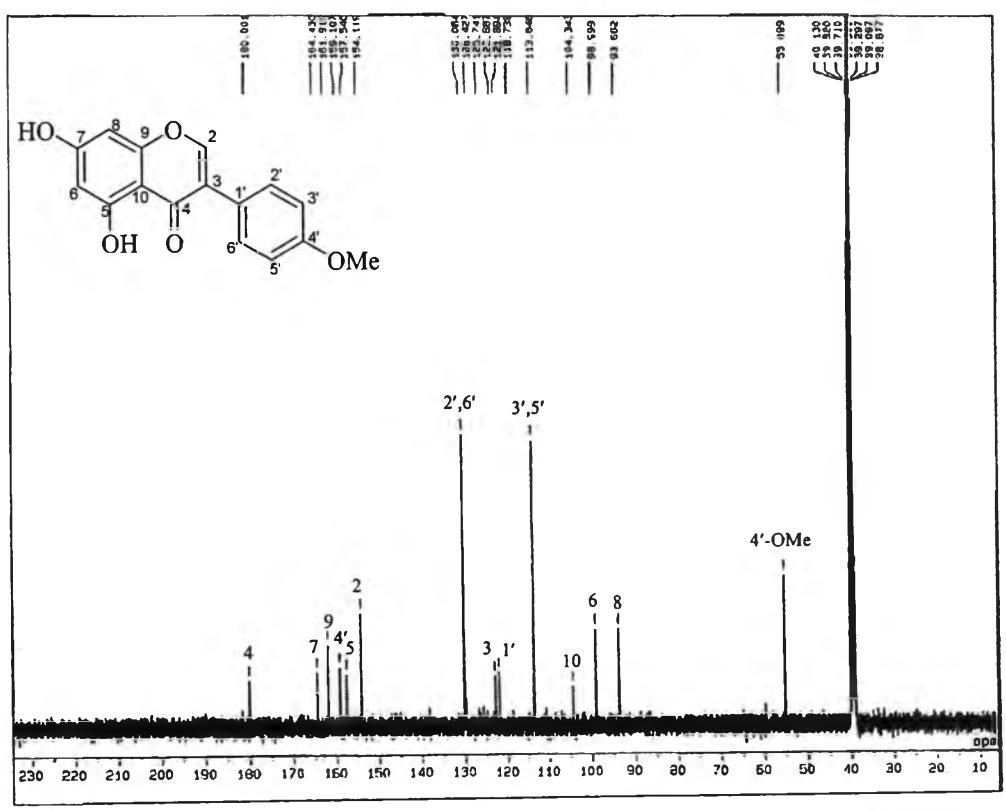

Figure 115 ^{13}C NMR (100.4 MHz) Spectrum of compound DP9 (DMSO-d_6)

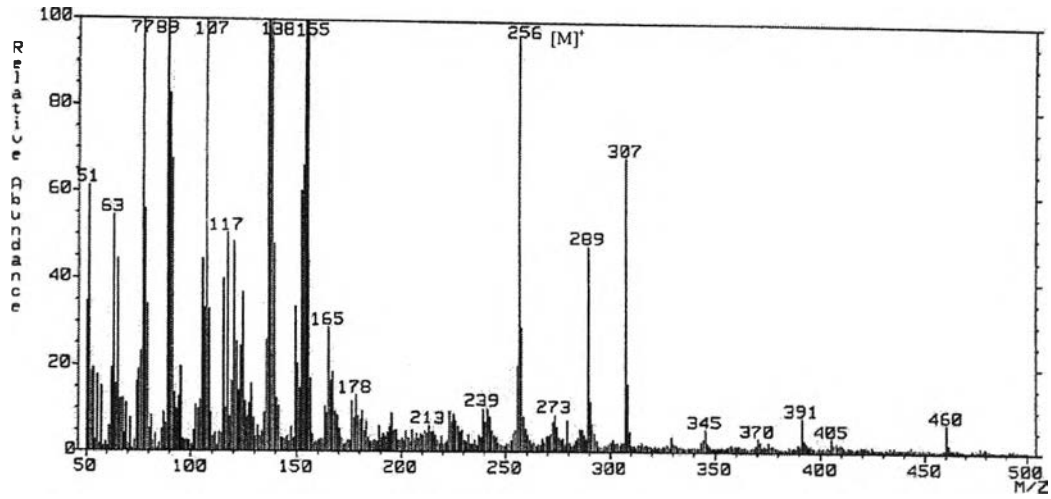

Figure 116 FABMS Spectrum of compound DP10

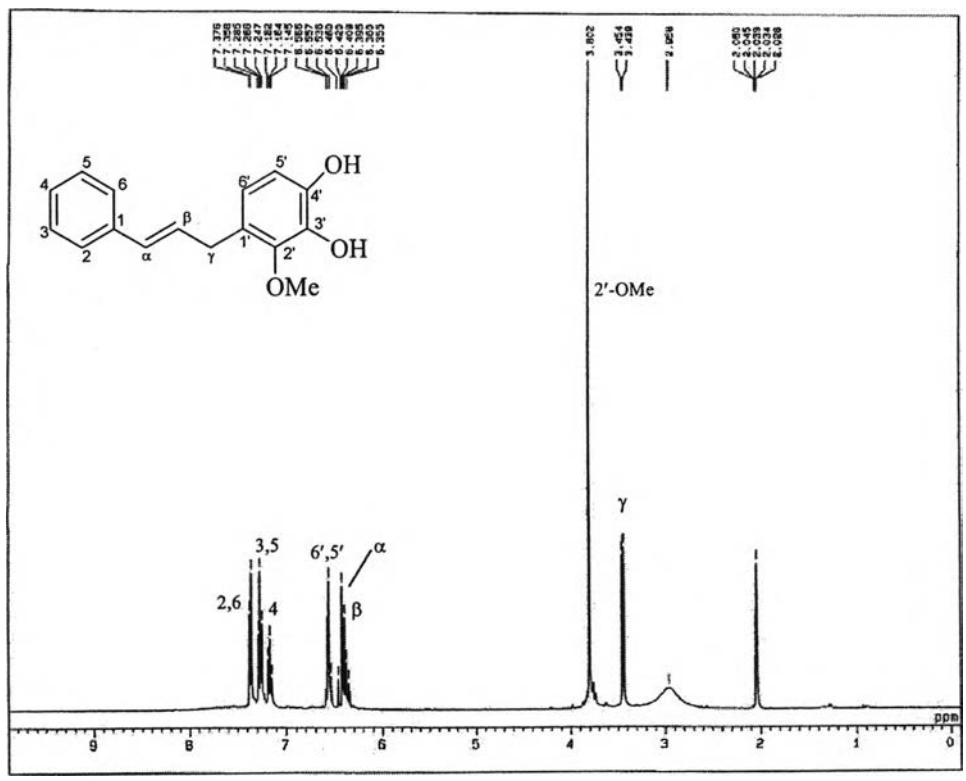

Figure 117 ^{1}H NMR (400 MHz) Spectrum of compound DP10 (acetone-d_6)

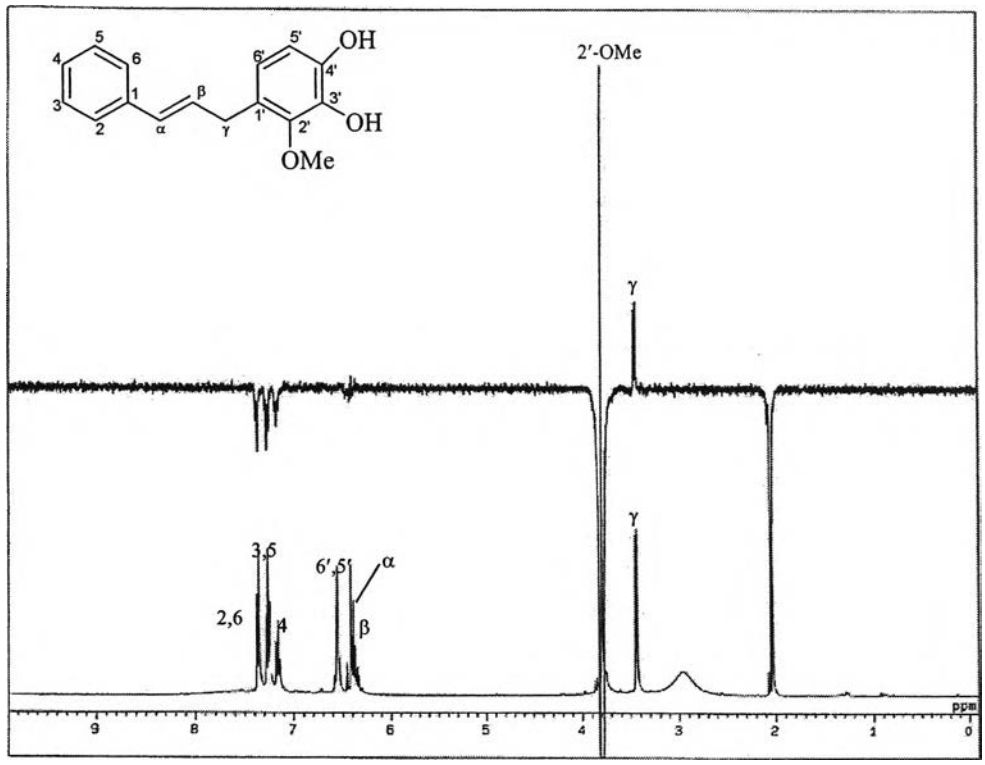

Figure 118 NOE difference Spectrum of compound DP10 (acetone-d_6)

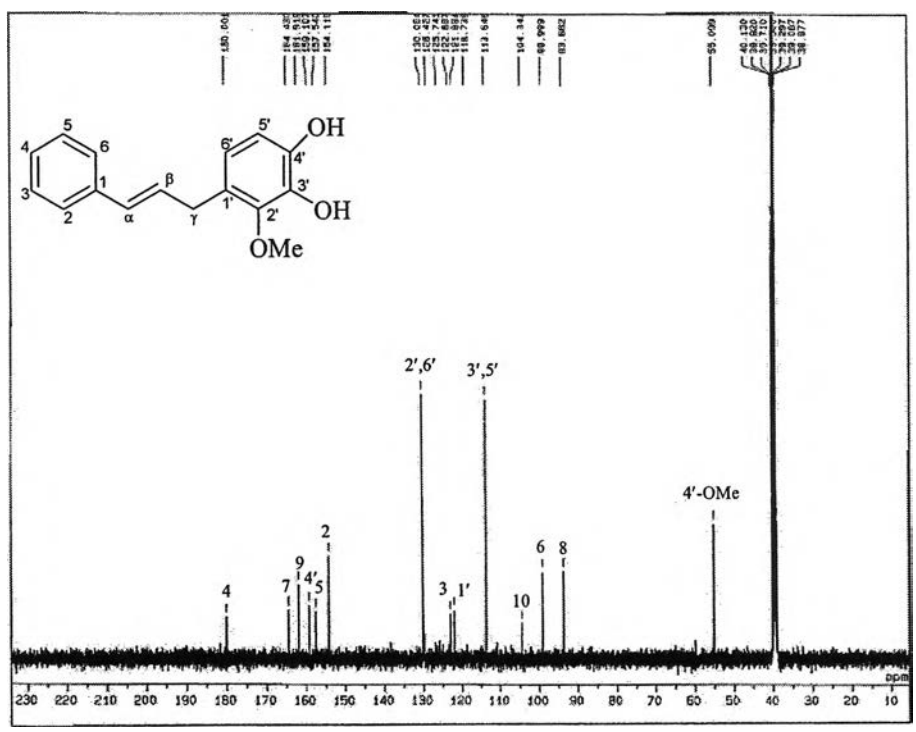

Figure 119 ^{13}C NMR (100.4 MHz) Spectrum of compound DP10 (acetone-d_6)

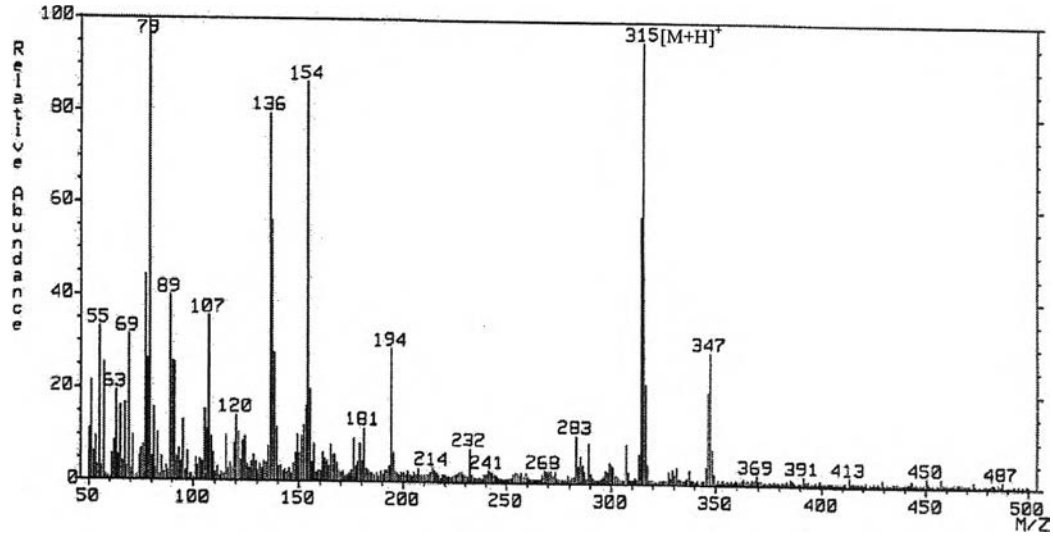

Figure 120 FABMS Spectrum of compound DP11

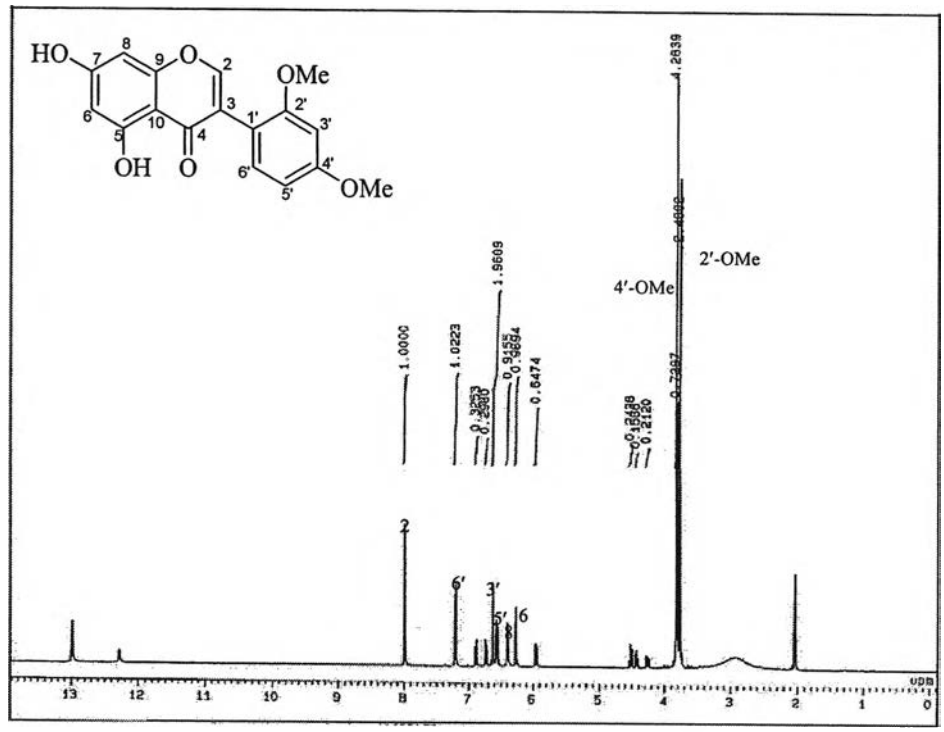

Figure 121 ^{1}H NMR (400 MHz) Spectrum of compound DP11 (acetone-d_6)

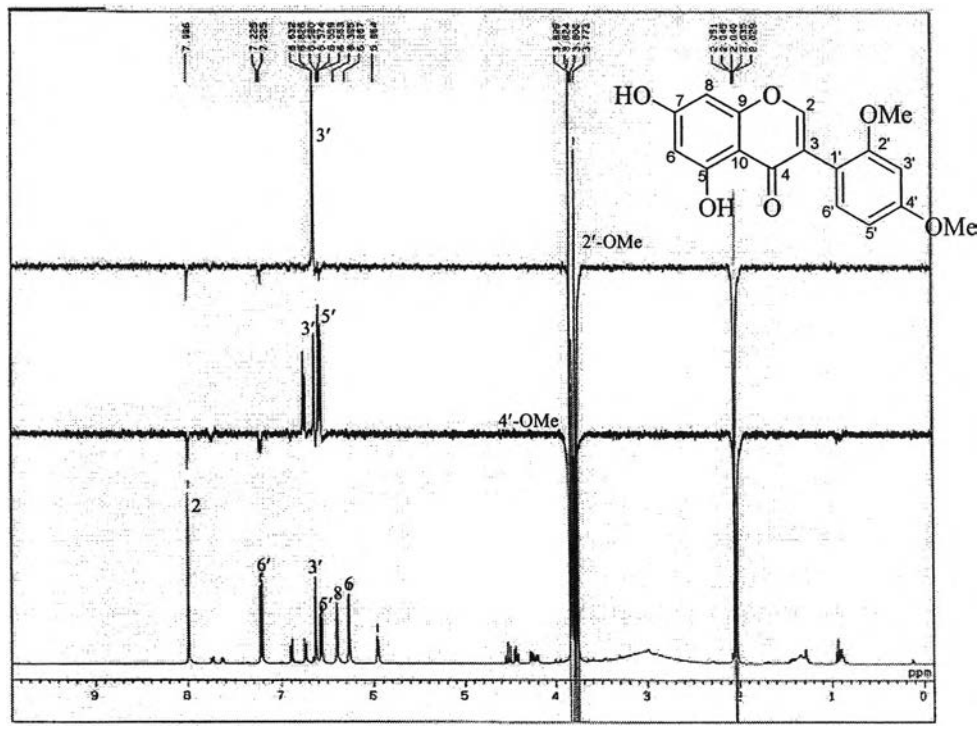

Figure 122 NOE difference Spectrum of compound DP11 (acetone-d_6)

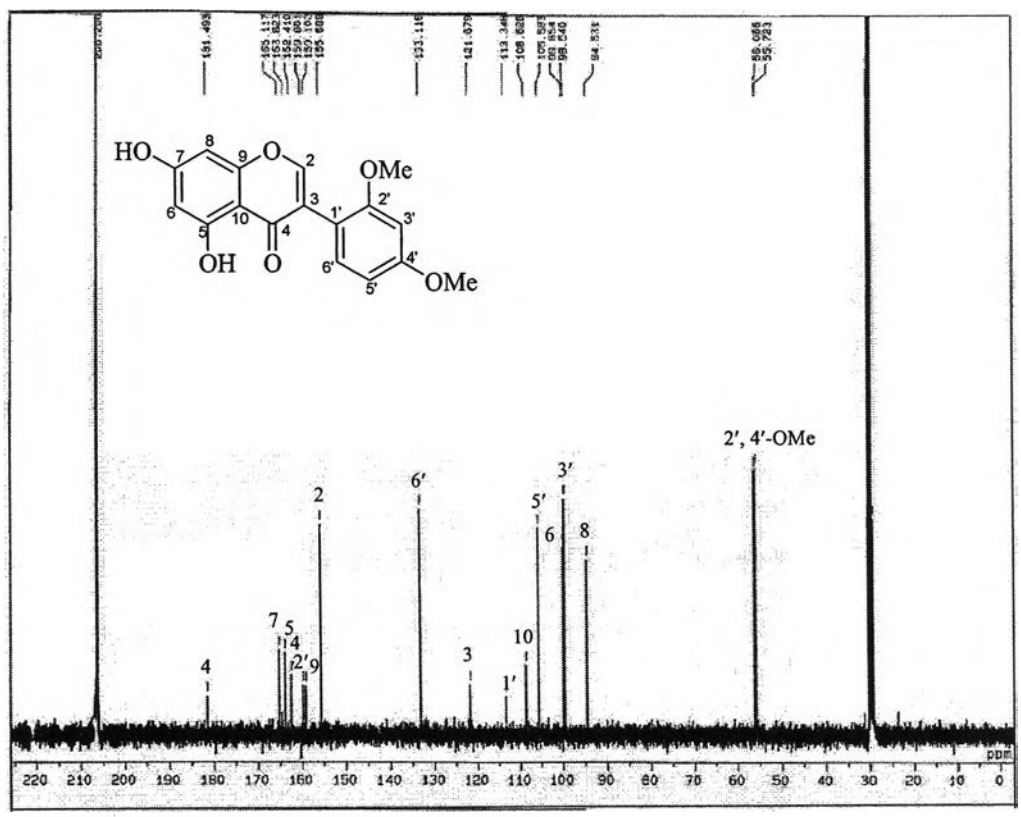

Figure 123 ^{13}C NMR (100.4 MHz) Spectrum of compound DP11 (acetone-d_6)

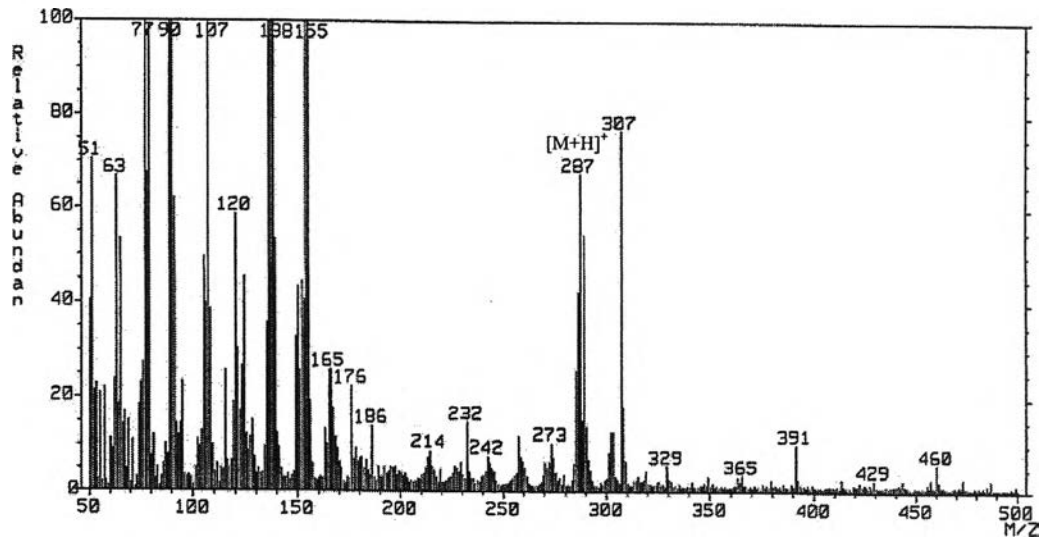

Figure 124 FABMS Spectrum of compound DP16

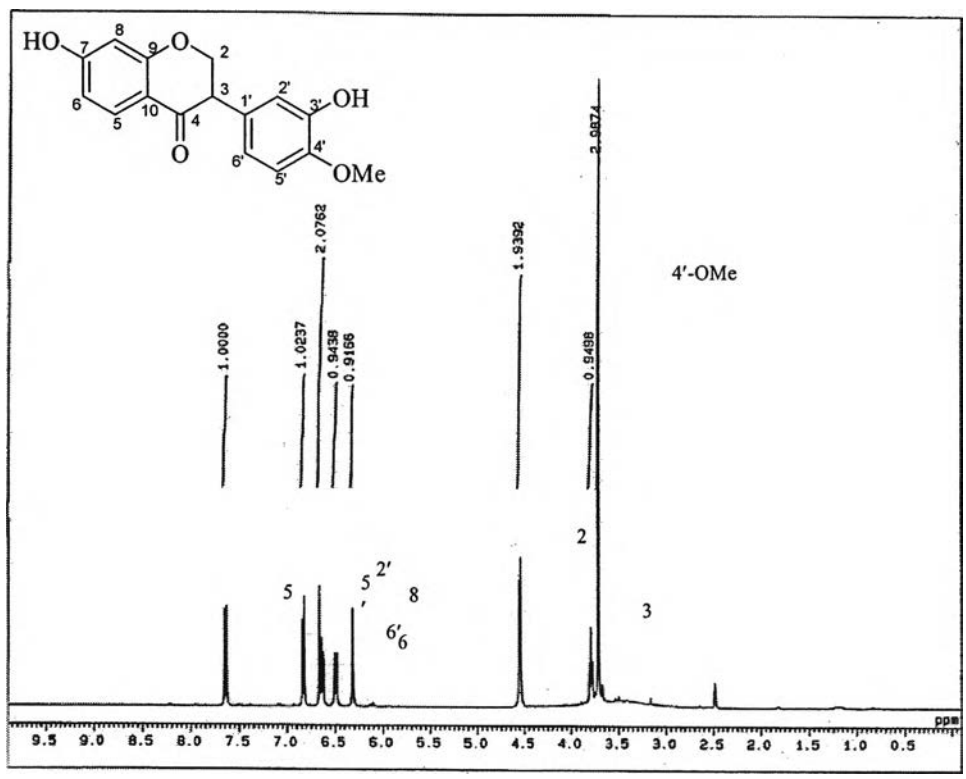

Figure 125 ^{1}H NMR (400 MHz) Spectrum of compound DP16 (DMSO-d_6)

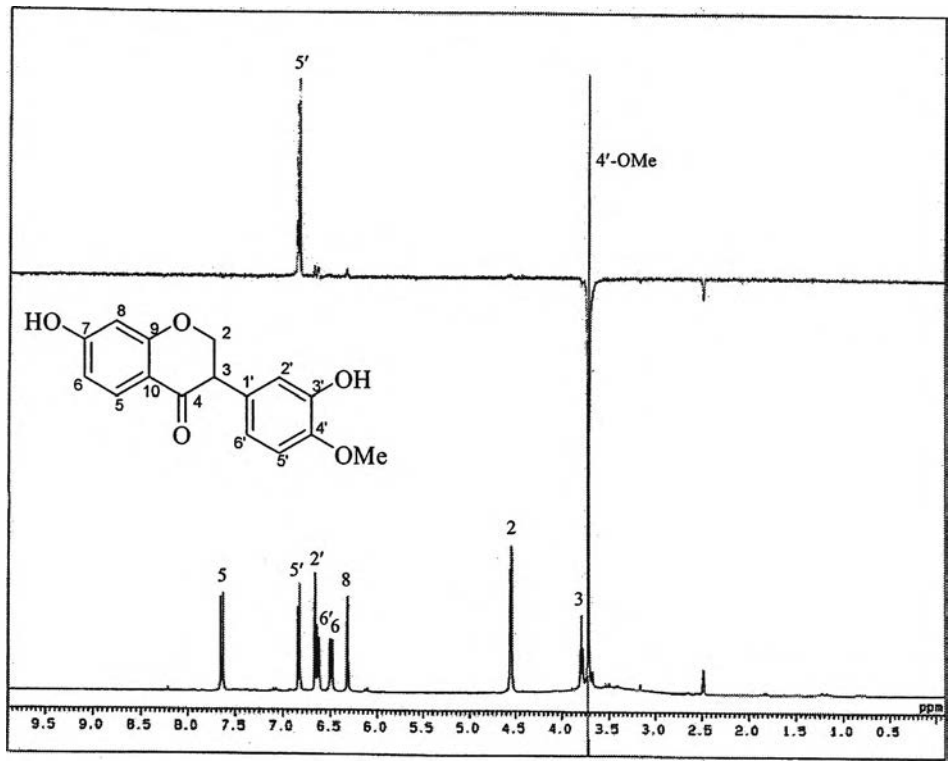

Figure 126 NOE difference Spectrum of compound DP16 (DMSO-d_6)

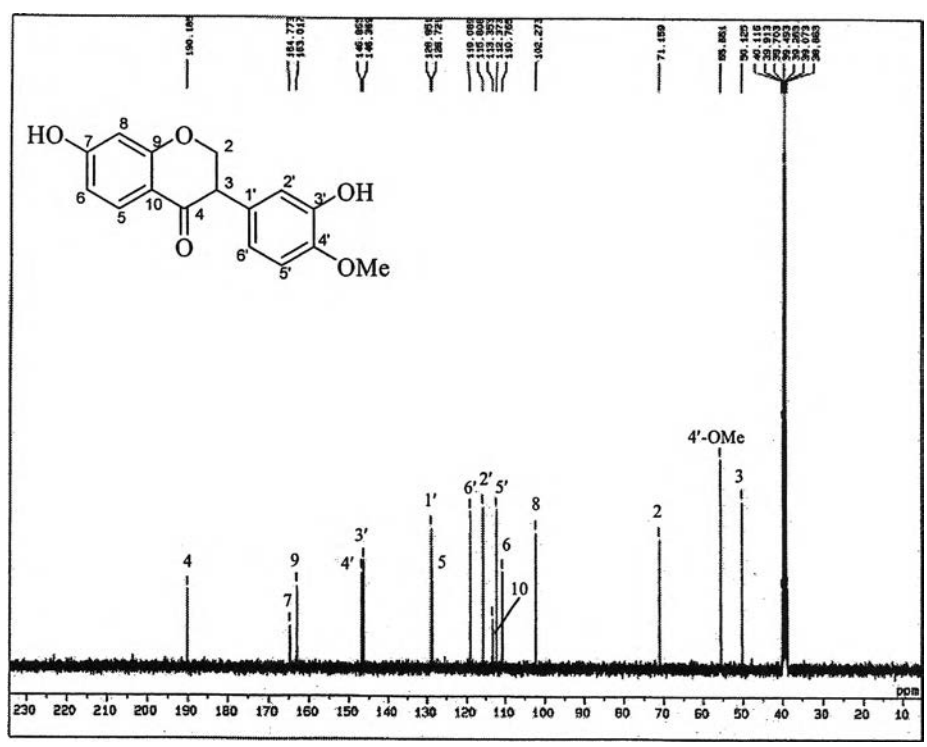

Figure 127 ^{13}C NMR (100.4 MHz) Spectrum of compound DP16 (DMSO-d_6)

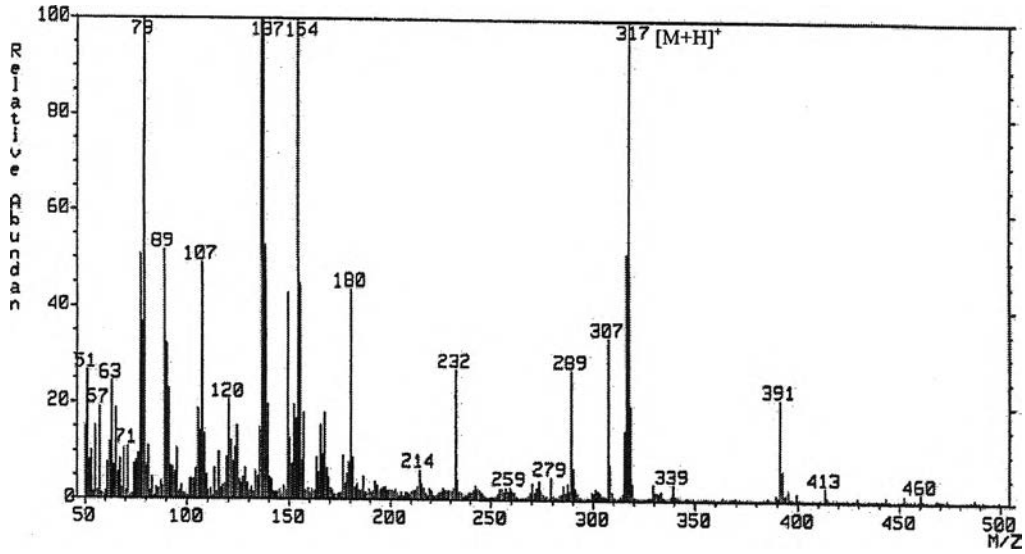

Figure 128 FABMS Spectrum of compound DP17

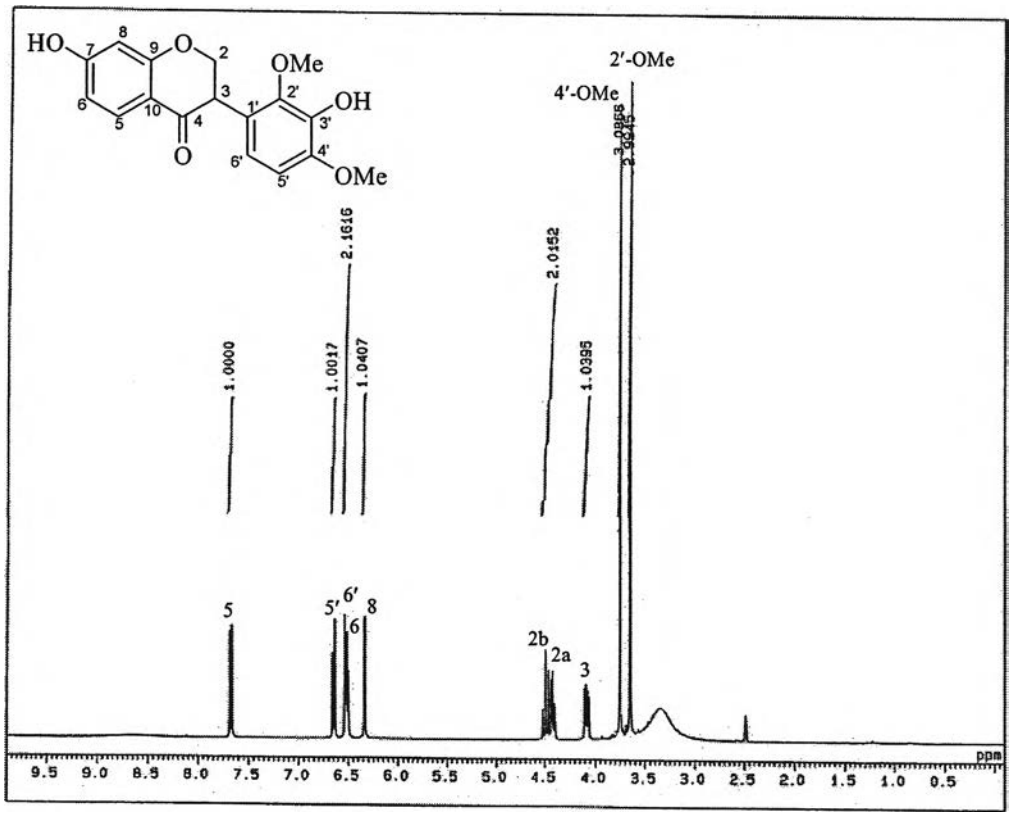

Figure 129 ^{1}H NMR (400 MHz) Spectrum of compound DP17 (DMSO-d_6)

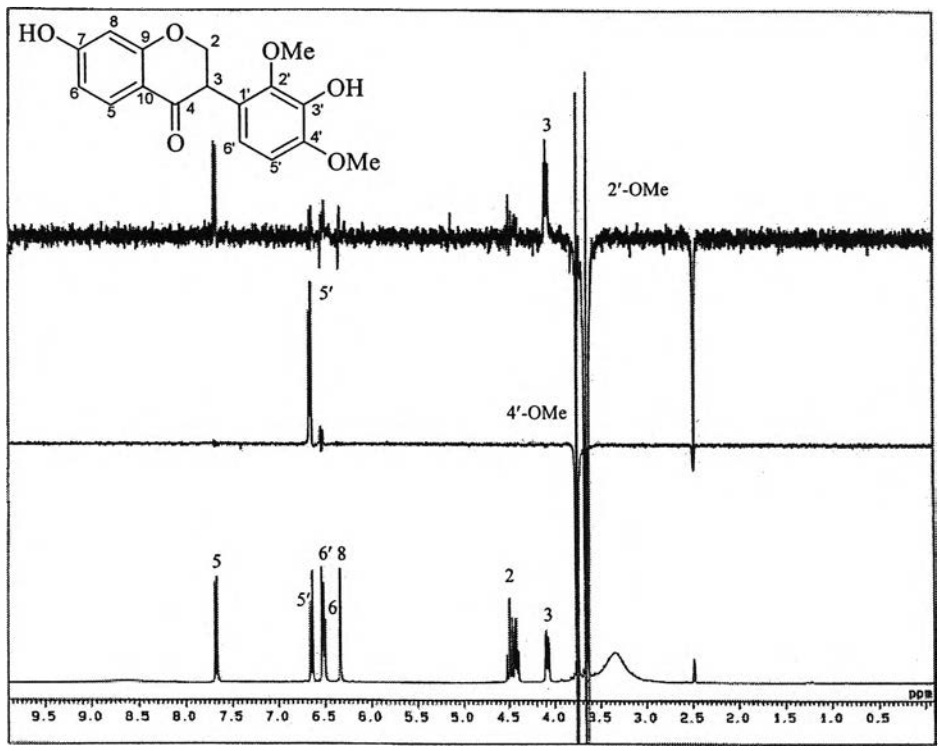

Figure 130 NOE difference Spectrum of compound DP17 (DMSO–d_6)

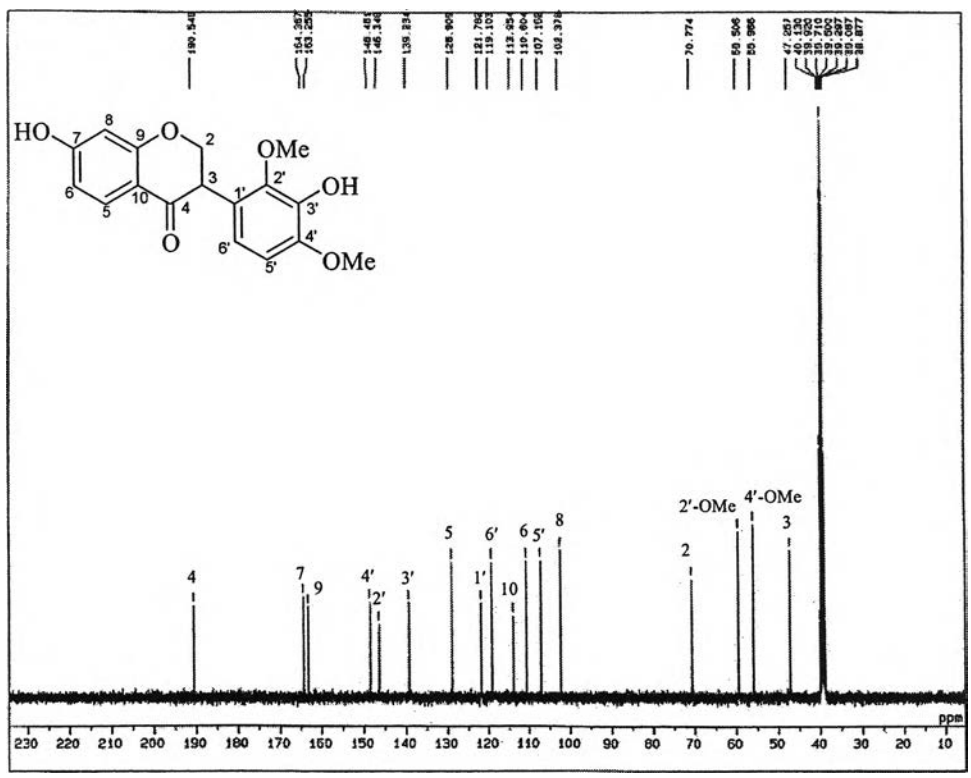

Figure 131 ^{13}C NMR (100.4 MHz) Spectrum of compound DP17 (DMSO–d_6)

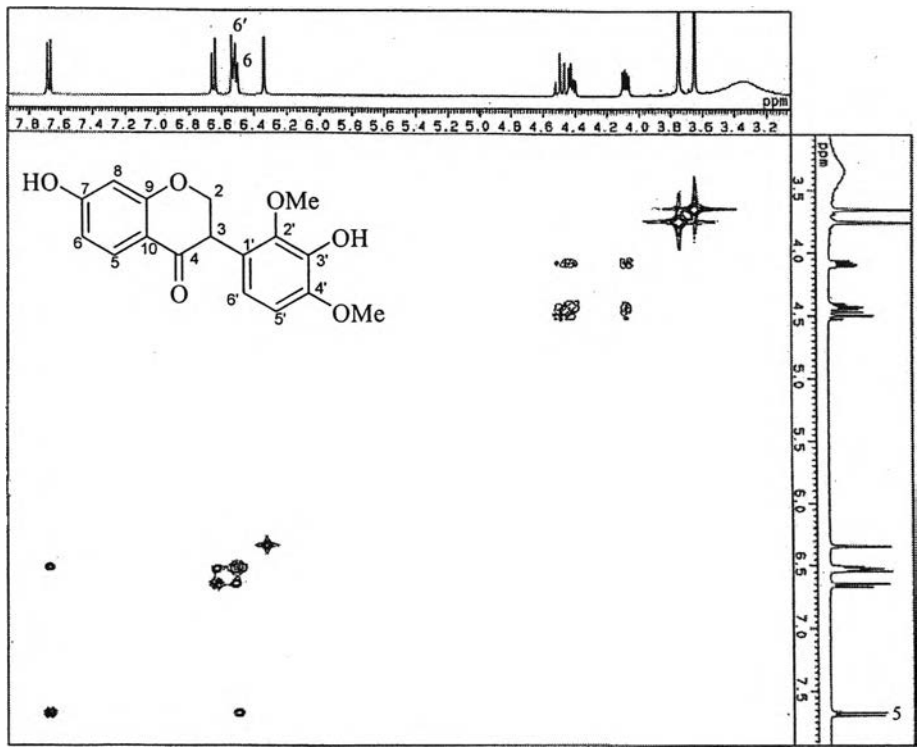

Figure 132 ^{1}H-^{1}H COSY Spectrum of compound DP17 (DMSO–d_6)

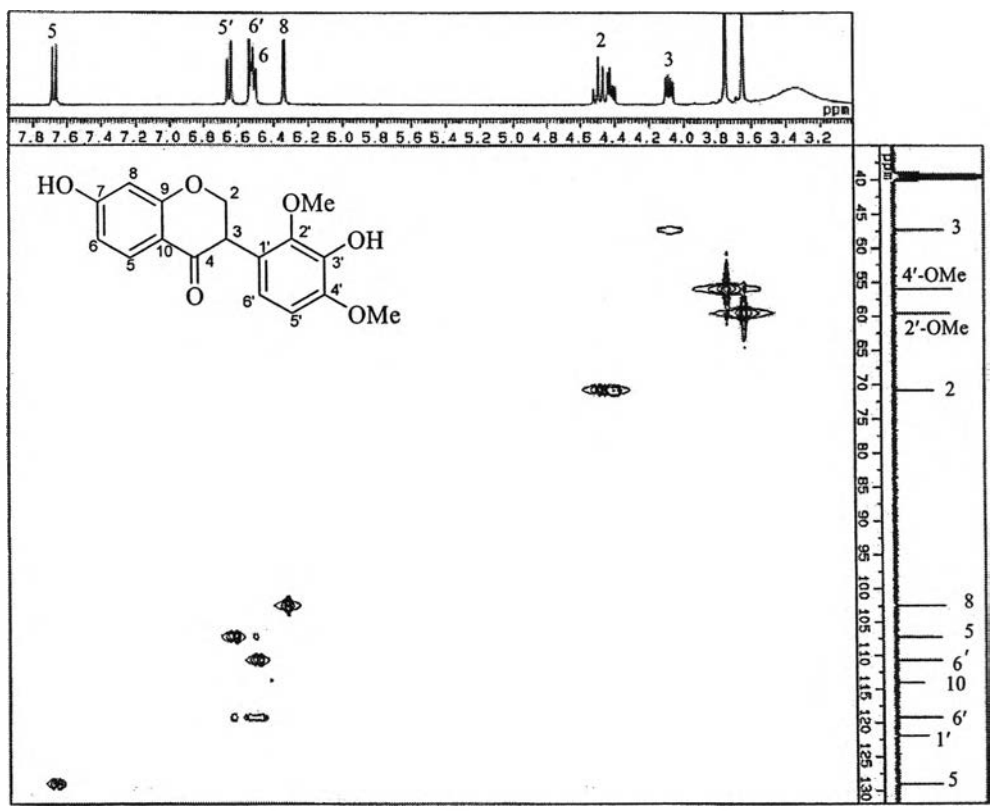

Figure 133 HMQC Spectrum of compound DP17 (DMSO –d_6)

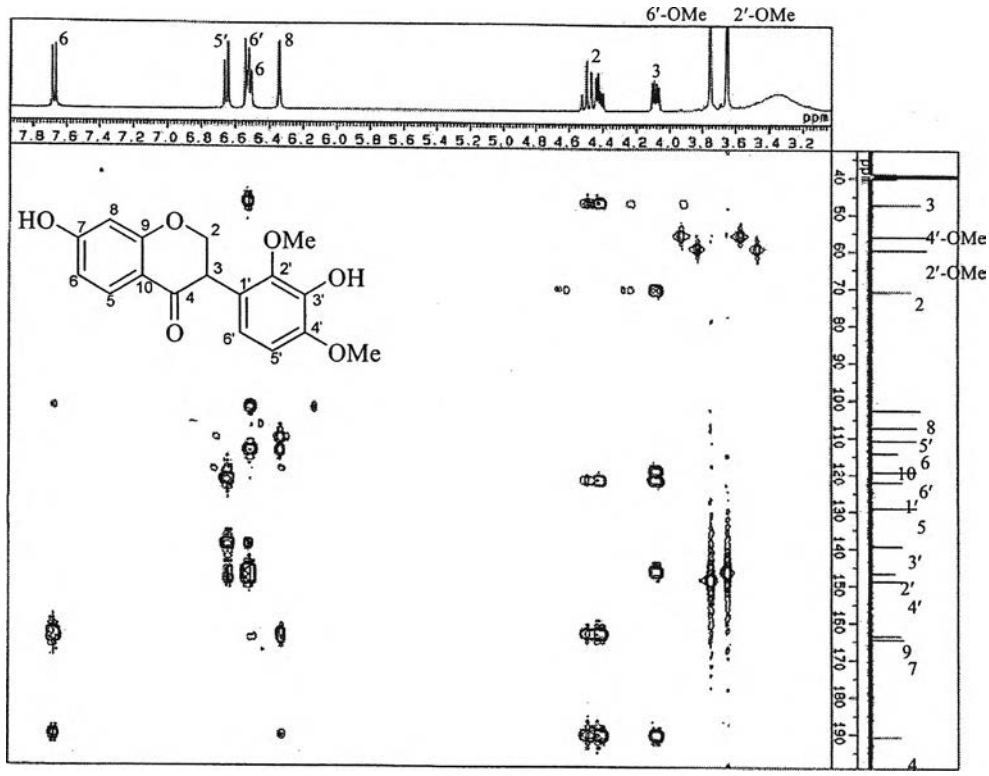

Figure 134 HMBC Spectrum of compound DP17 (DMSO–d_6)

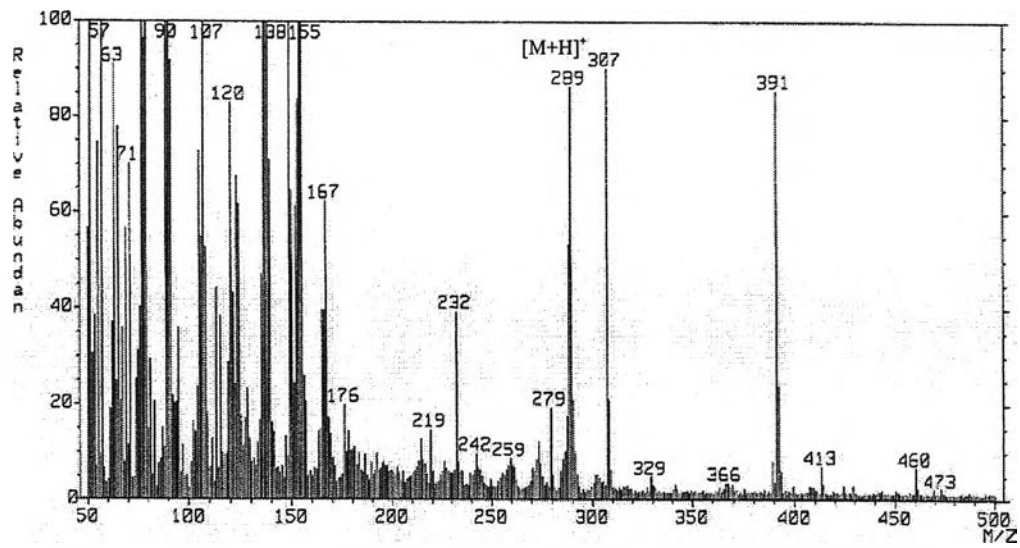

Figure 135 FABMS Spectrum of compound DP18

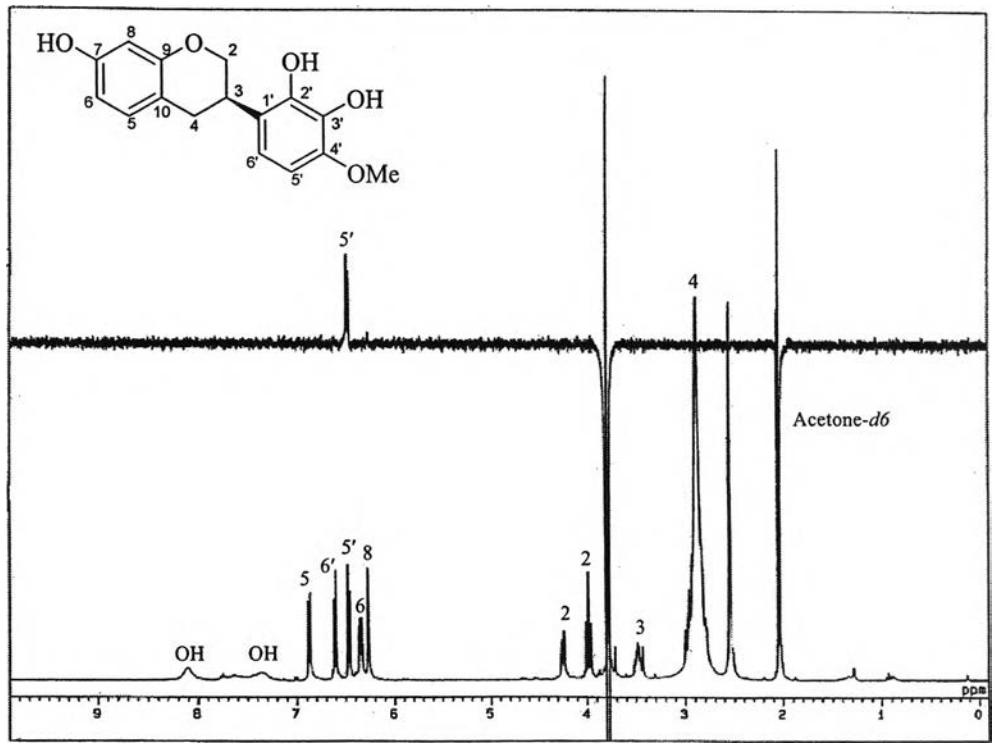

Figure 136 NOE difference Spectrum of compound DP18 (acetone-d_6)

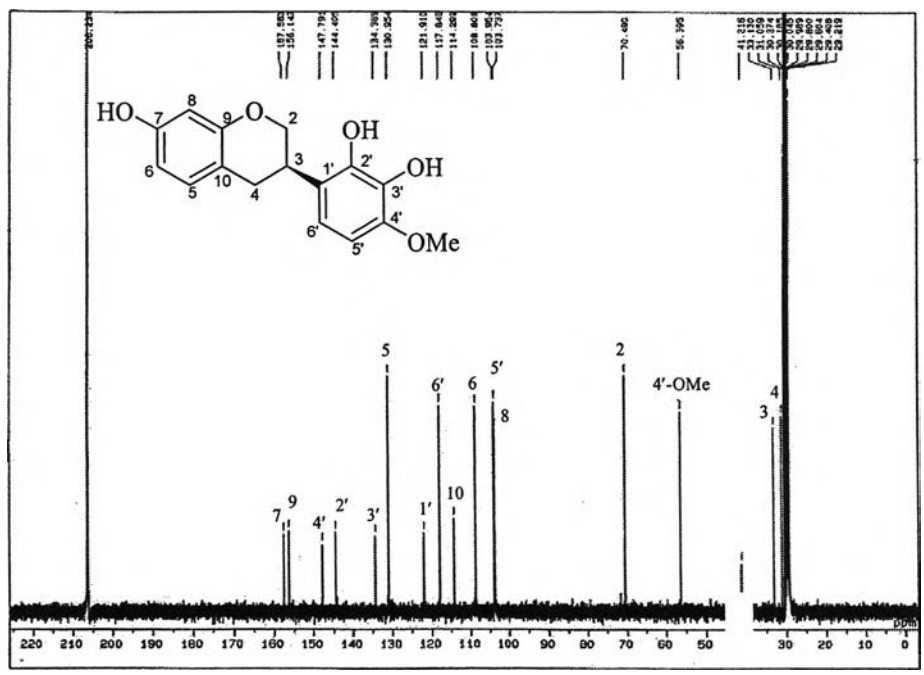

Figure 137 ^{13}C NMR (100.4 MHz) Spectrum of compound DP18 (acetone-d_6)

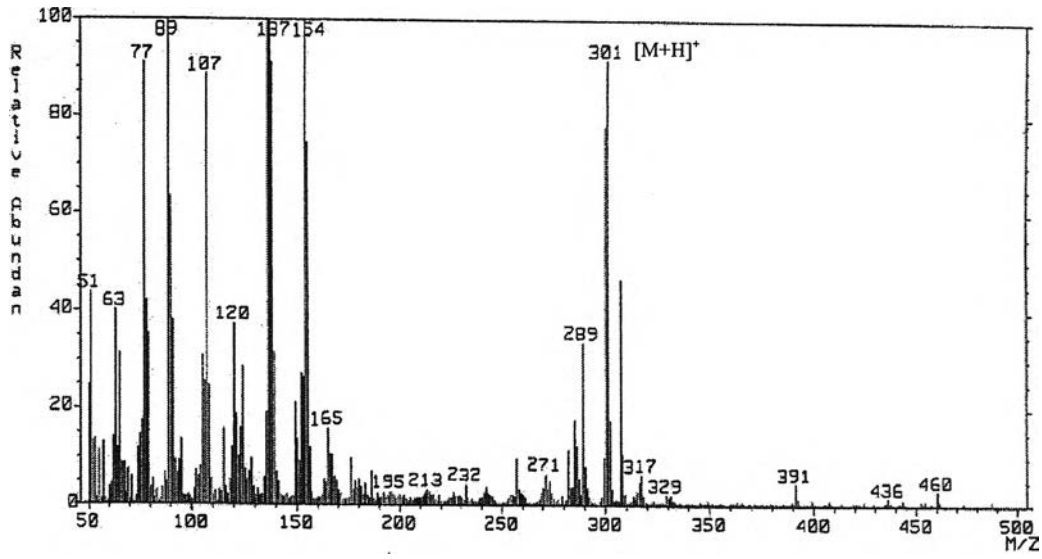

Figure 138 FABMS Spectrum of compound DP19

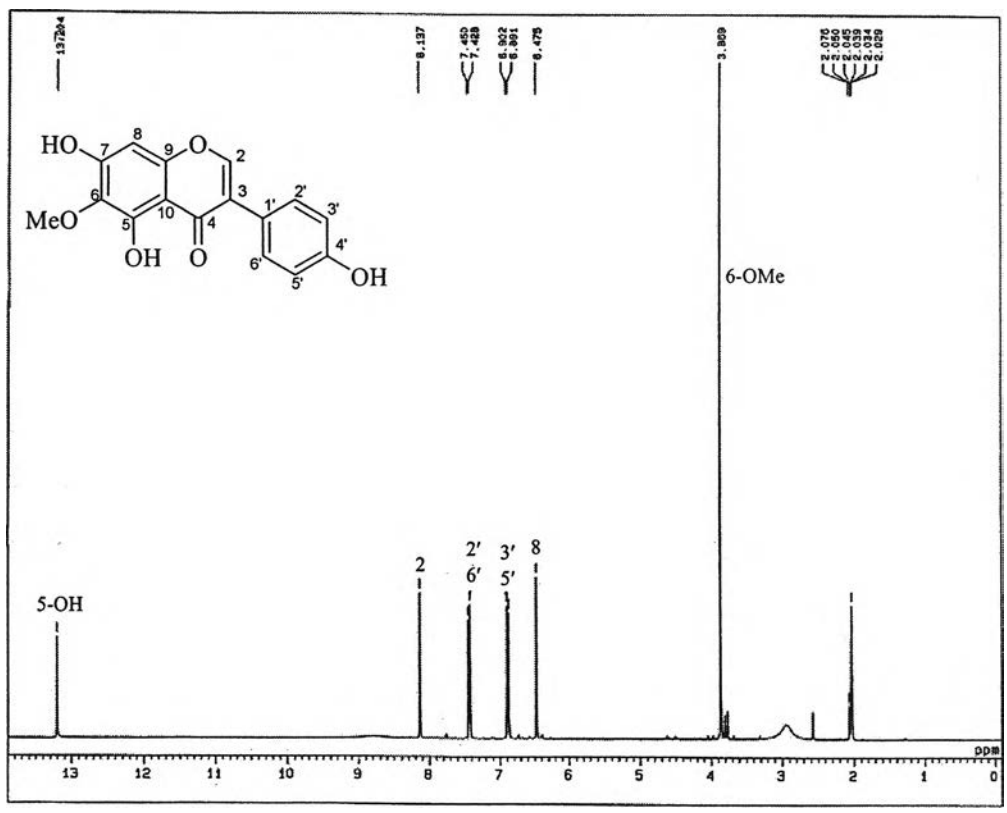

Figure 139 ^{1}H NMR (400 MHz) Spectrum of compound DP19 (acetone-d_6)

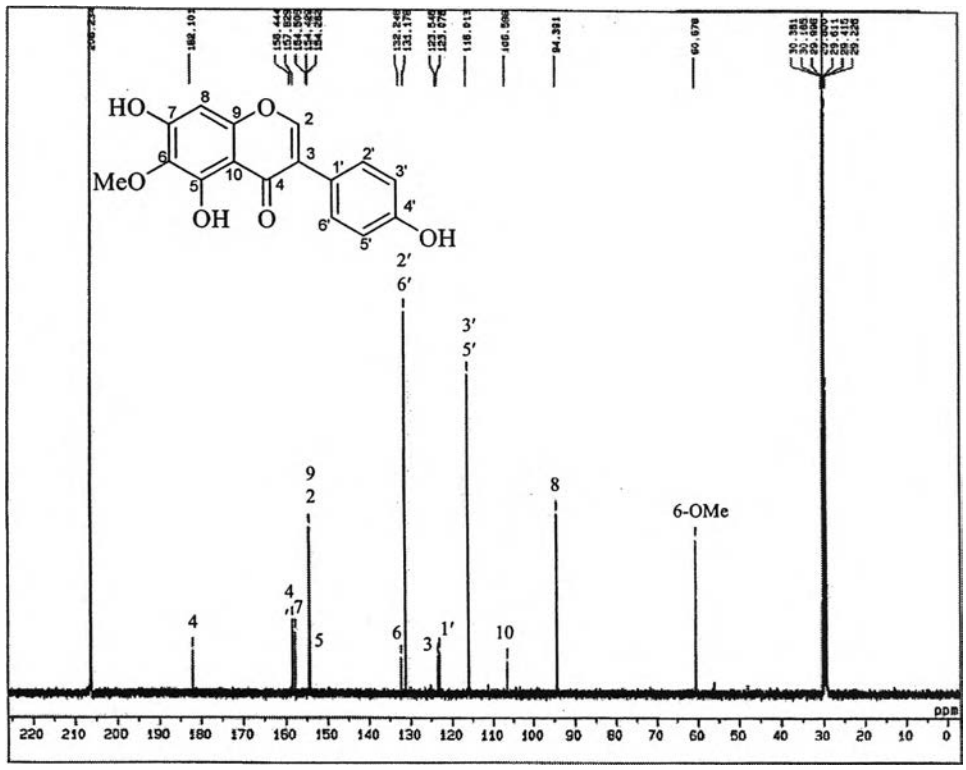

Figure 140 ^{13}C NMR (100.4 MHz) Spectrum of compound DP19 (acetone-d_6)

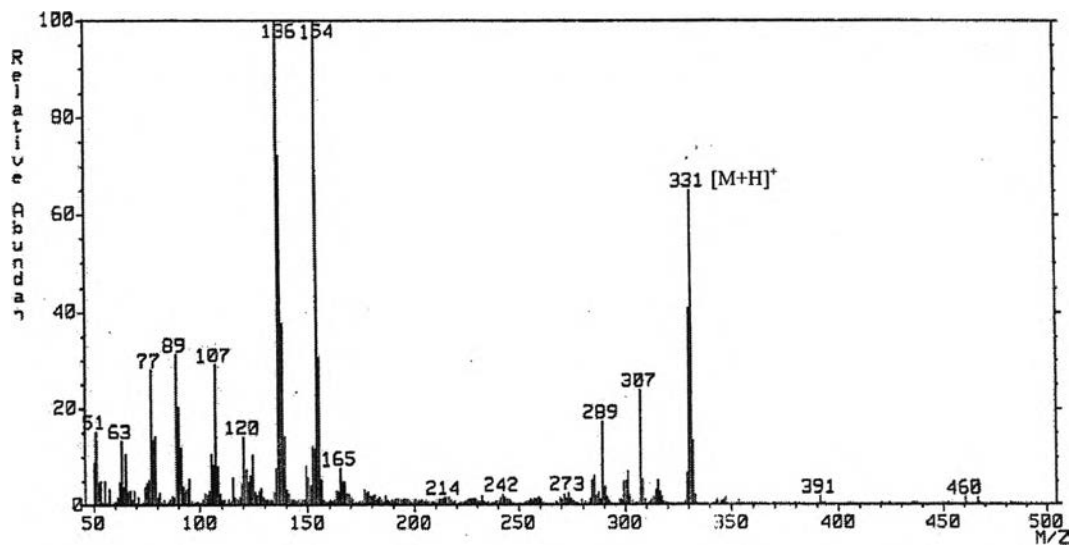

Figure 141 HRFABMS Spectrum of compound DP20

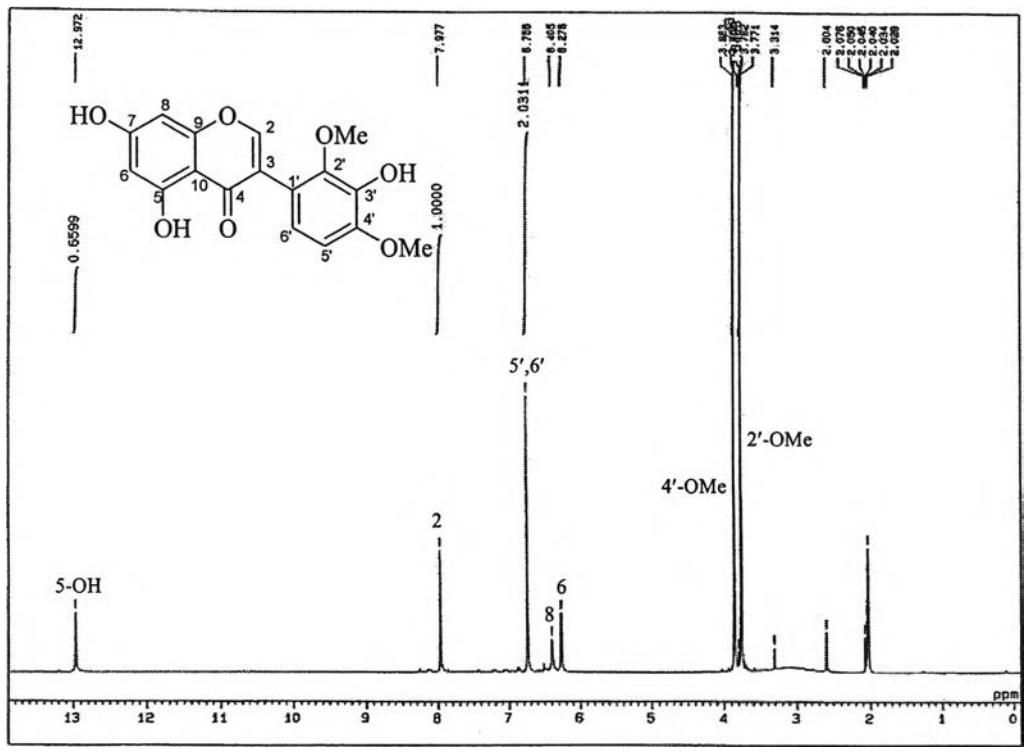

Figure 142 ^{1}H NMR (400 MHz) Spectrum of compound DP20 (acetone-d_6)

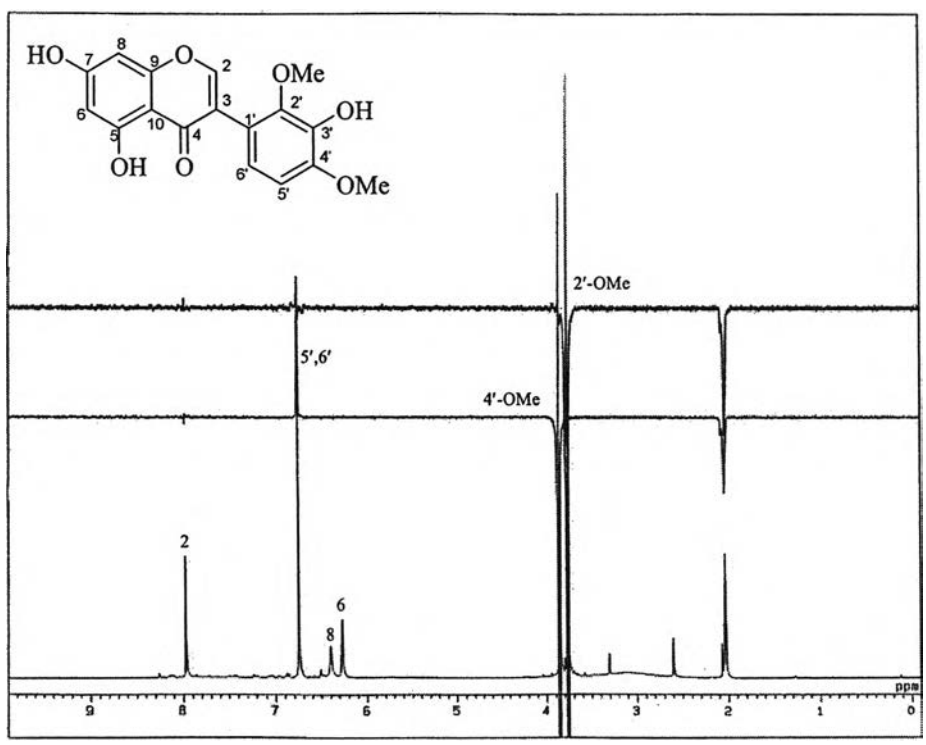

Figure 143 NOE difference Spectrum of compound DP20 (acetone-d_6)

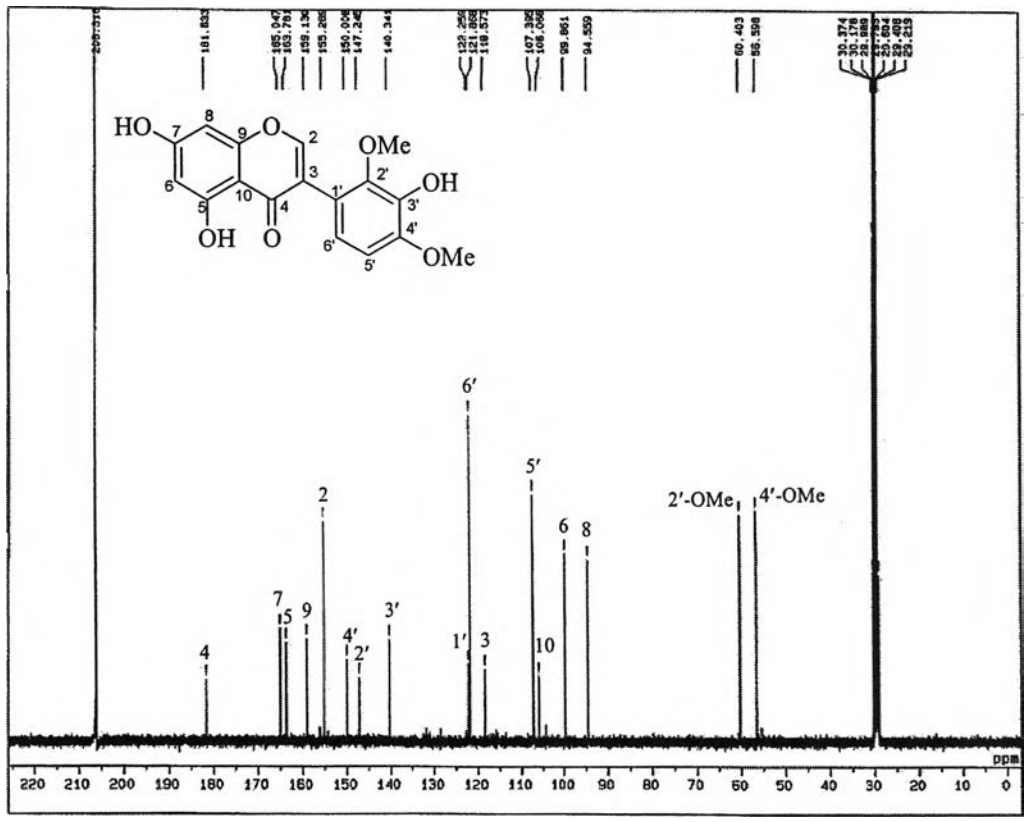

Figure 144 ^{13}C NMR (100.4 MHz) Spectrum of compound DP20 (acetond-d_6)

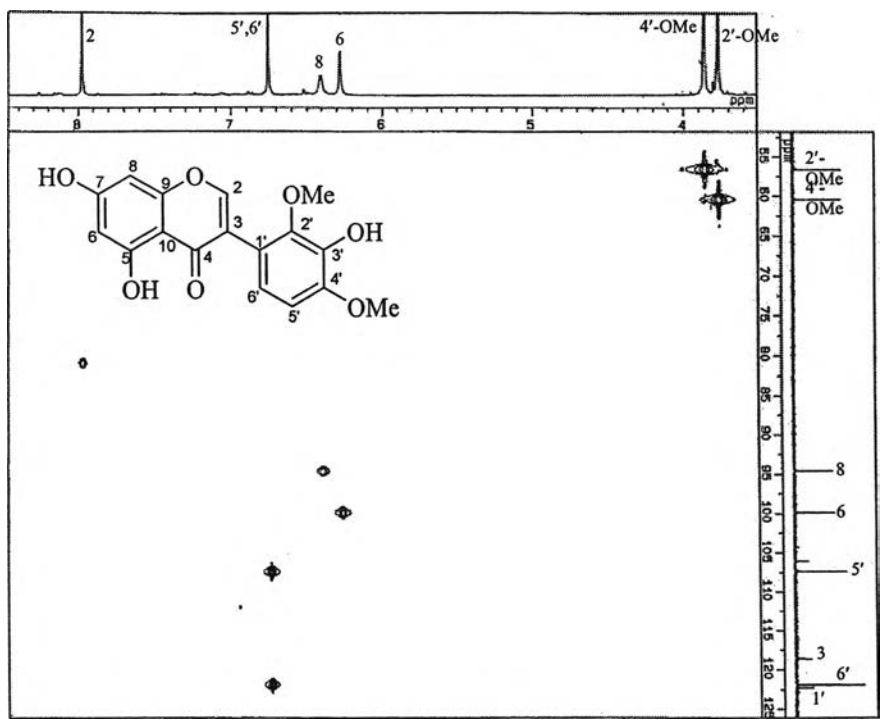

Figure 145 HMQC Spectrum of compound DP20 (acetone-d_6)

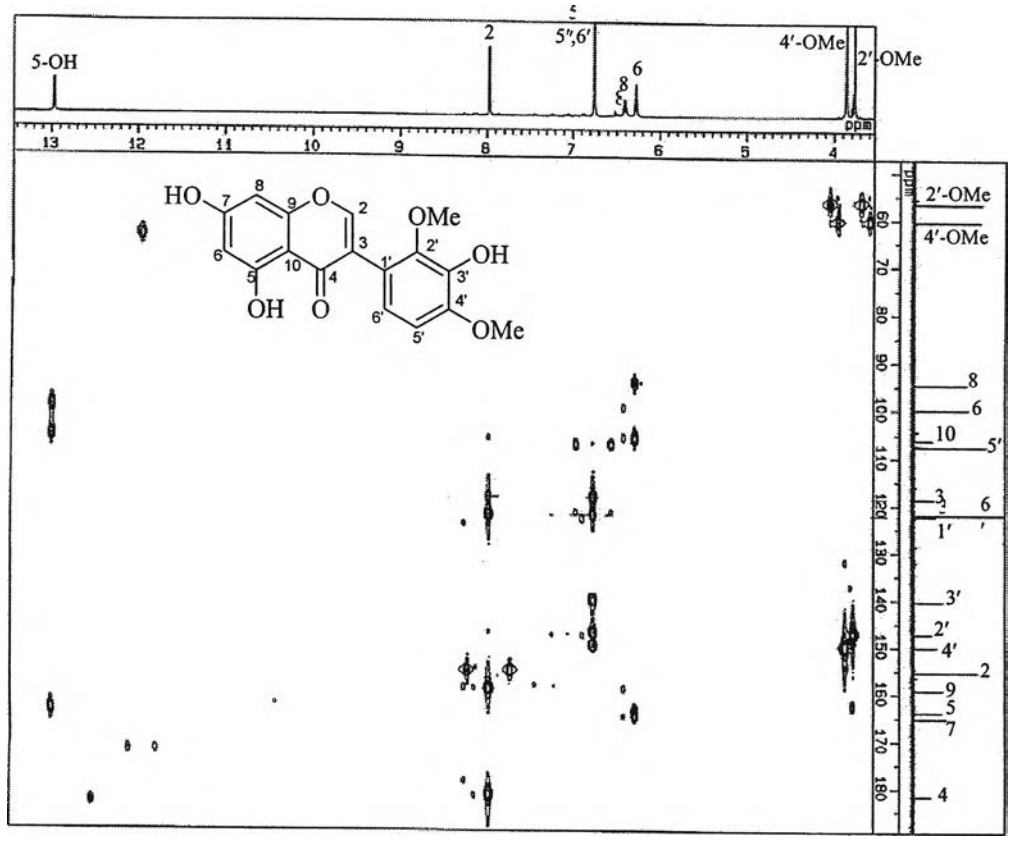

Figure 146 HMBC Spectrum of compound DP20 (acetone-d_6)

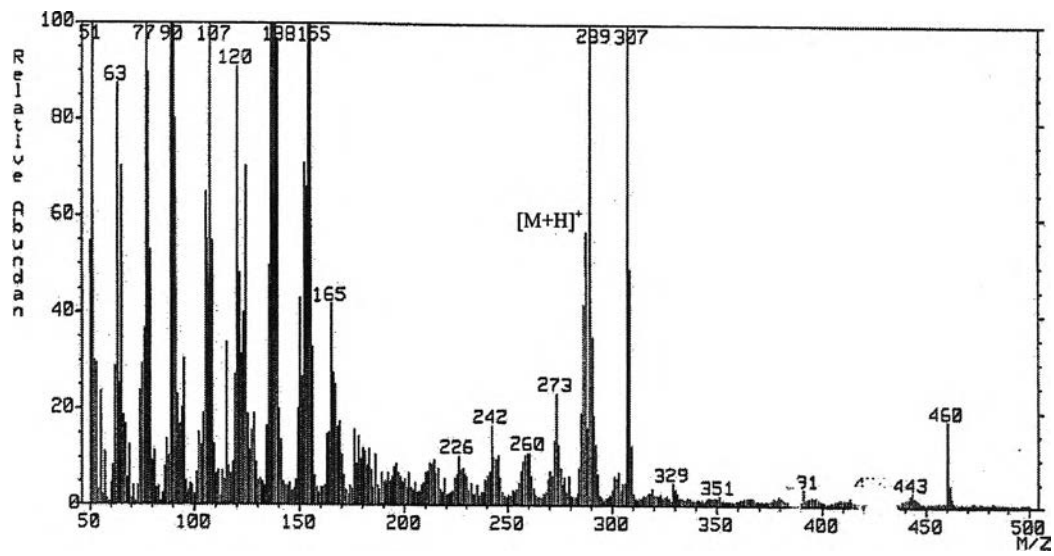

Figure 147 FABMS Spectrum of compound DP21

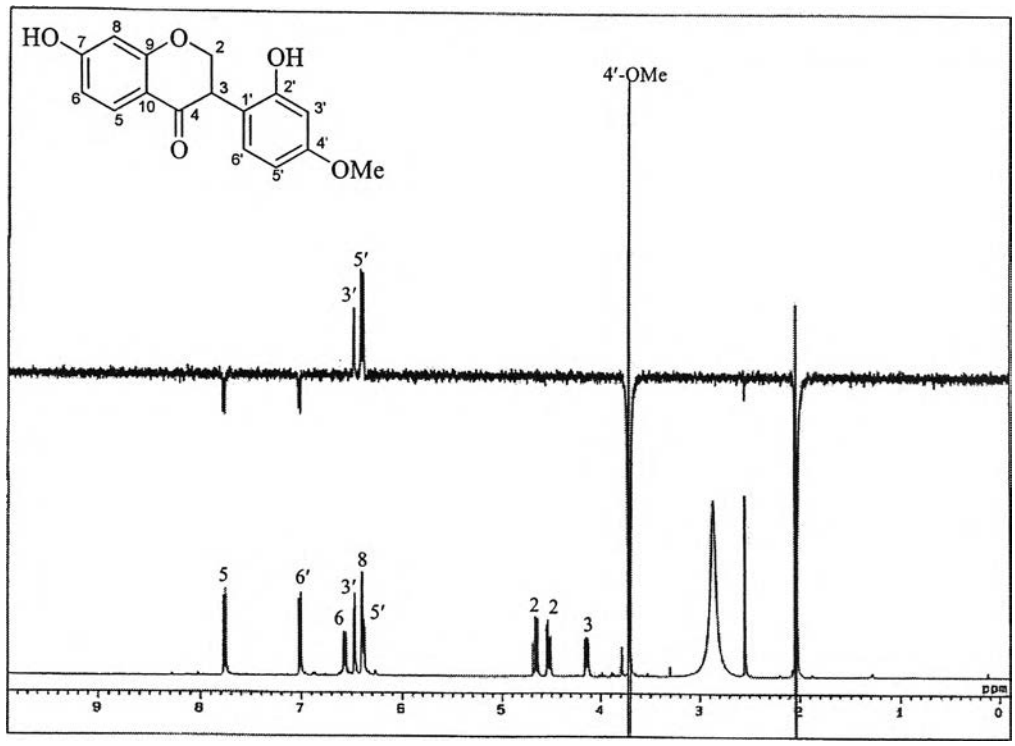

Figure 148 NOE difference Spectrum of compound DP21 (acetone-d_6)

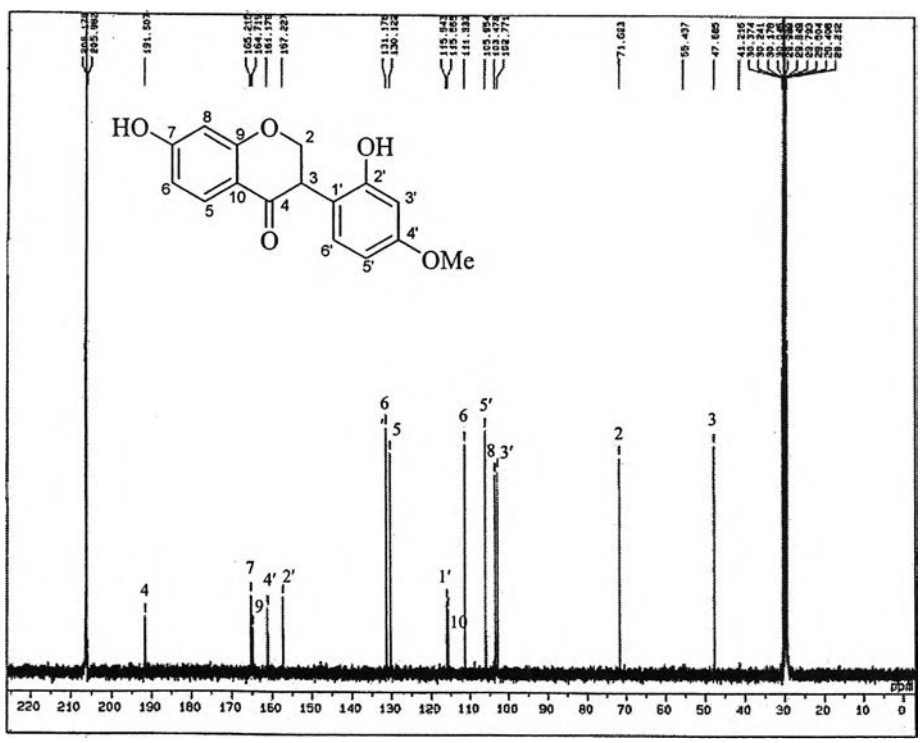

Figure 149 ^{13}C NMR (100.4 MHz) Spectrum of compound DP21 (acetone-d_6)

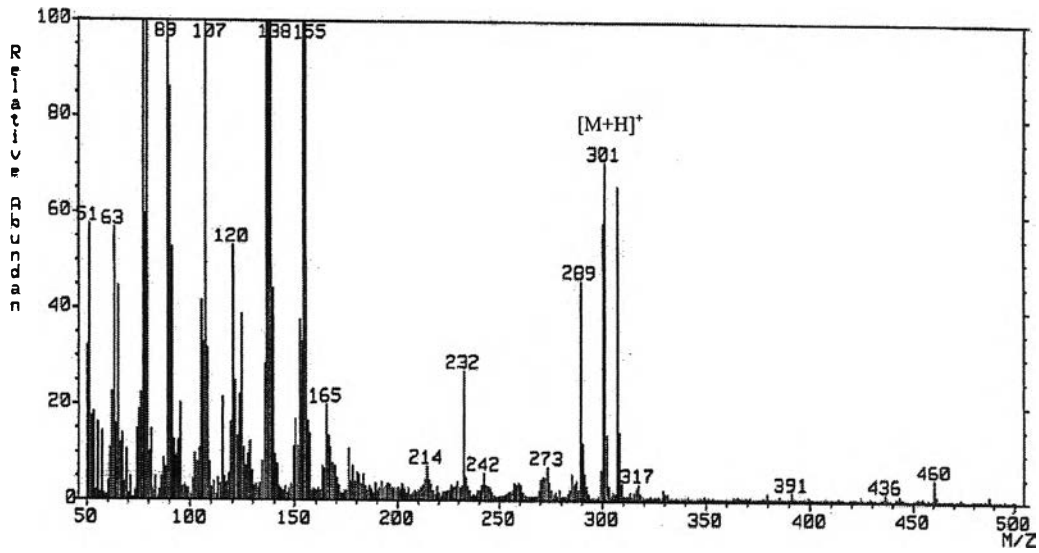

Figure 150 FABMS Spectrum of compound DP22

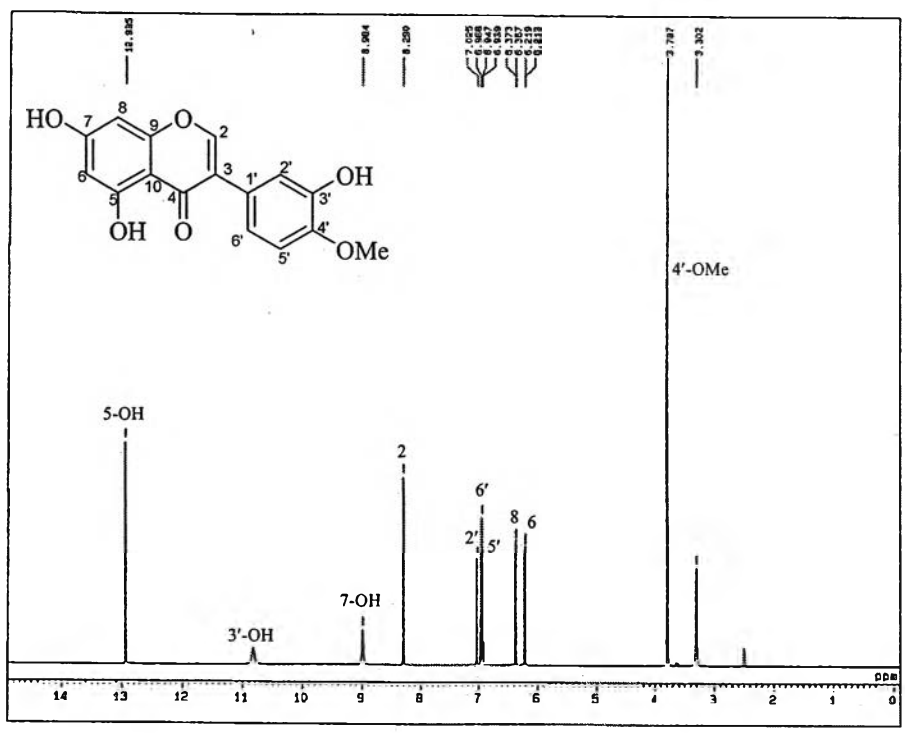

Figure 151 ^{1}H NMR Spectrum of compound DP22 (DMSO-d_6)

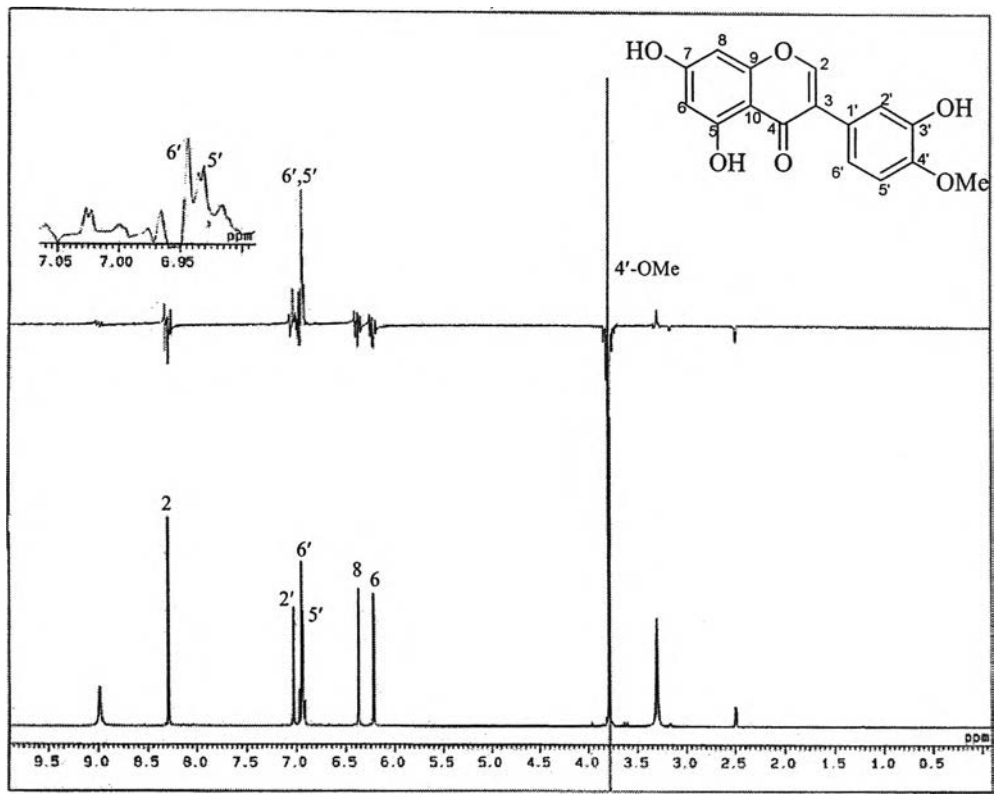

Figure 152 NOE difference Spectrum of compound DP22 (DMSO-d_6)

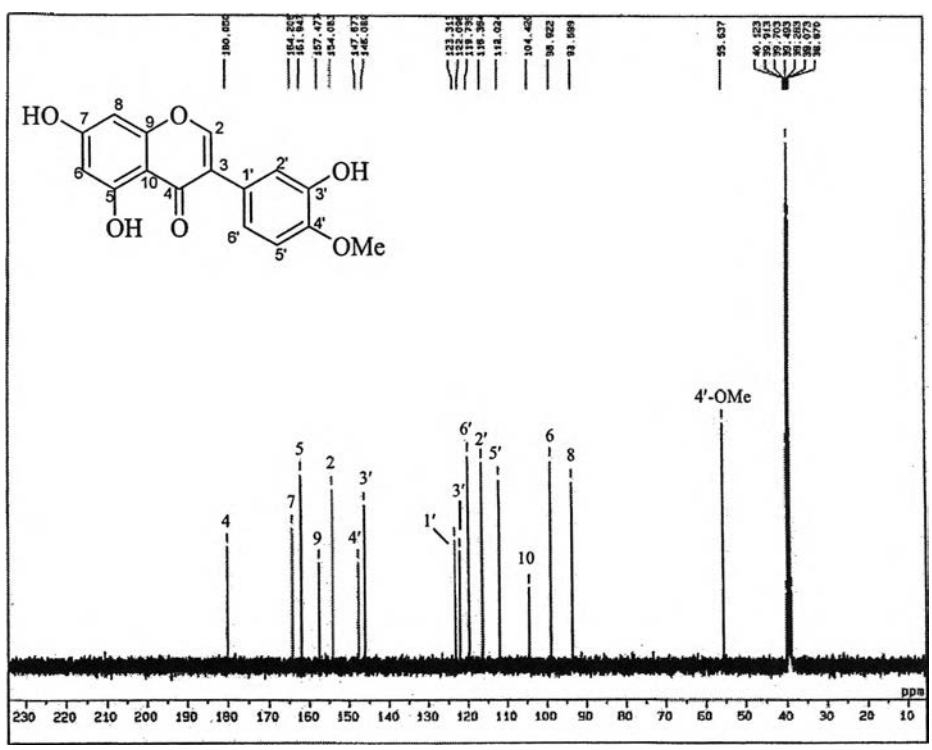

Figure 153 ^{13}C NMR (100.4 MHz) Spectrum of compound DP22 (DMSO-d_6)

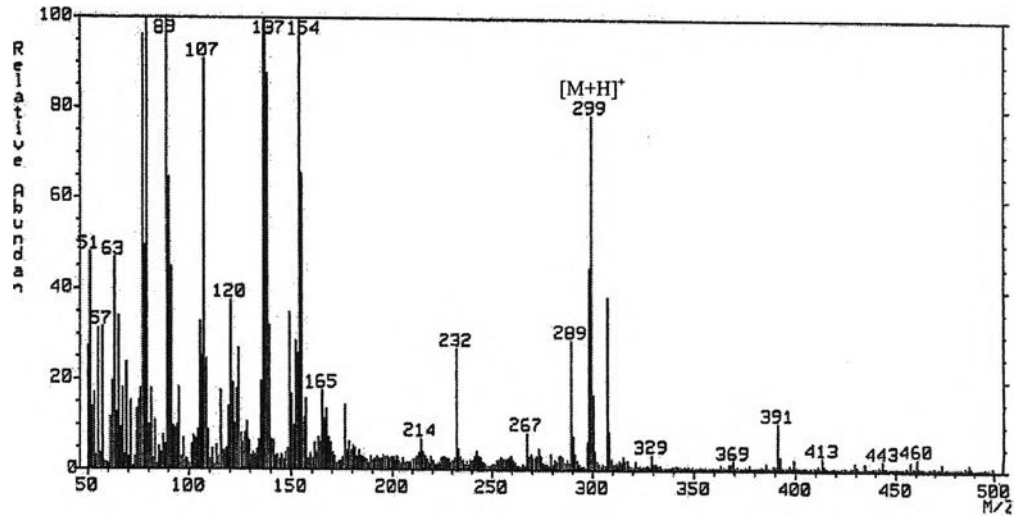

Figure 154 FABMS Spectrum of compound DP23

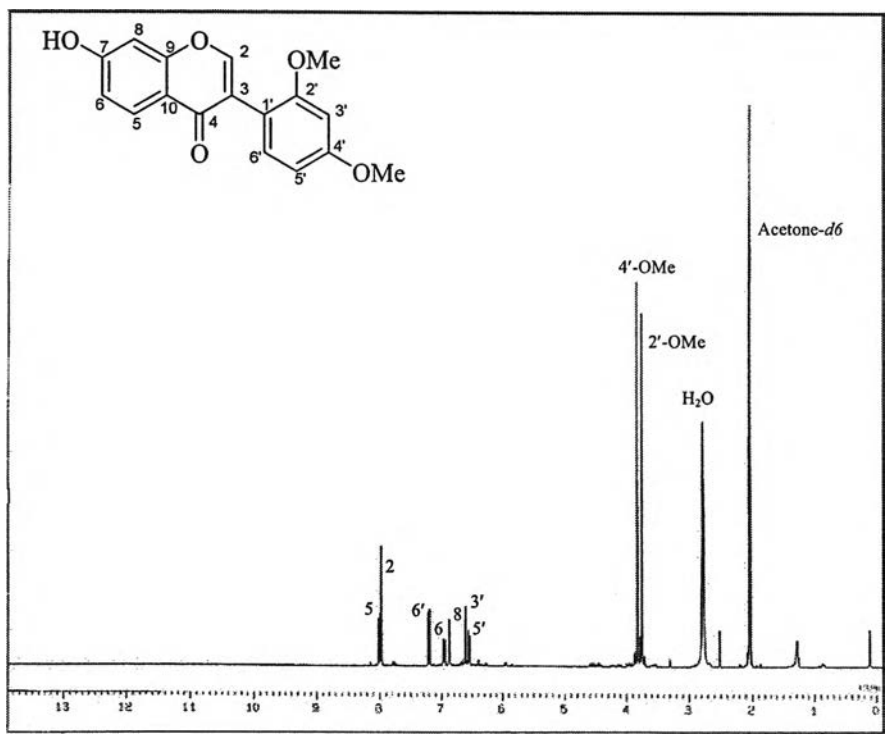

Figure 155 ^{1}H NMR (400 MHz) Spectrum of compound DP23 (acetone-d_6)

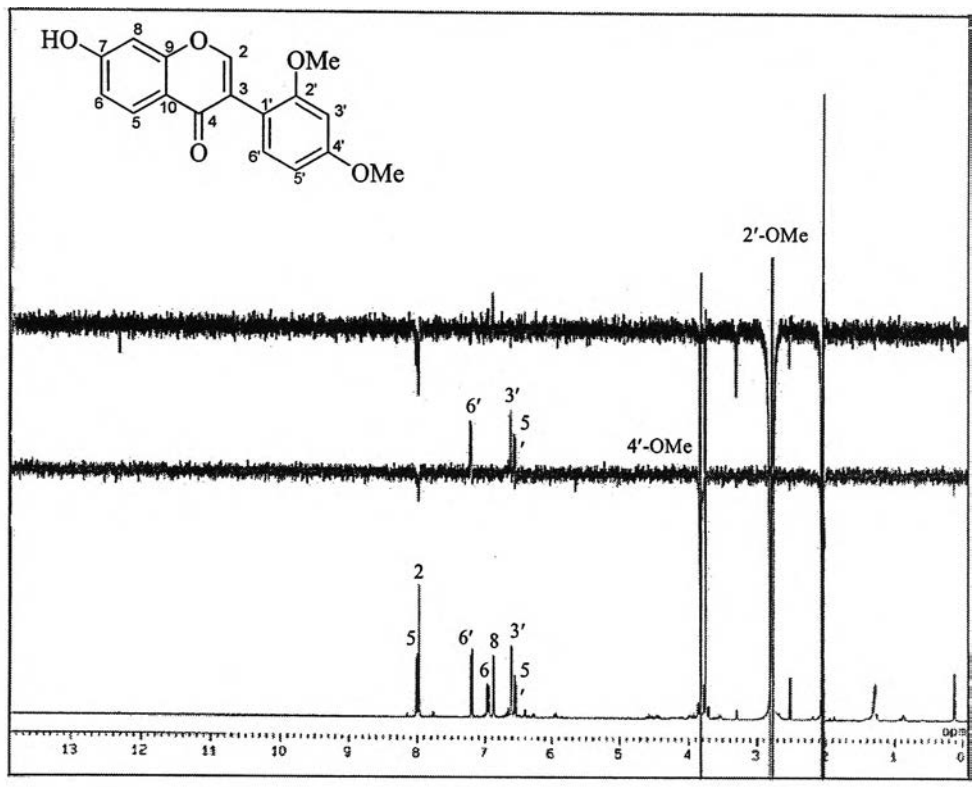

Figure 156 NOE difference Spectrum of compound DP23 (acetone-d_6)

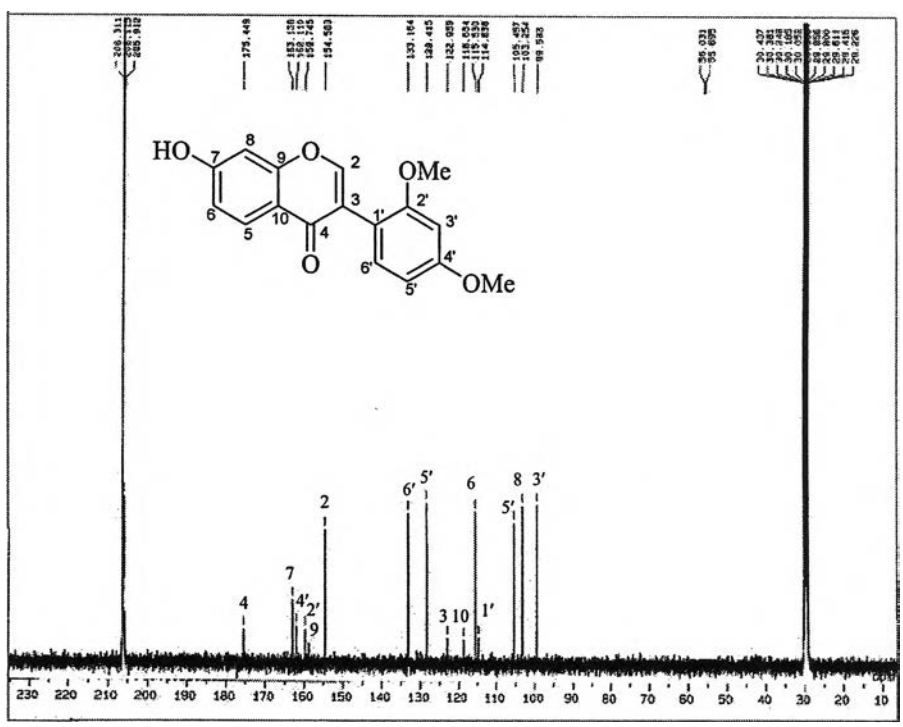

Figure 157 ^{13}C NMR (100.4 MHz) Spectrum of compound DP23 (acetone-d_6)

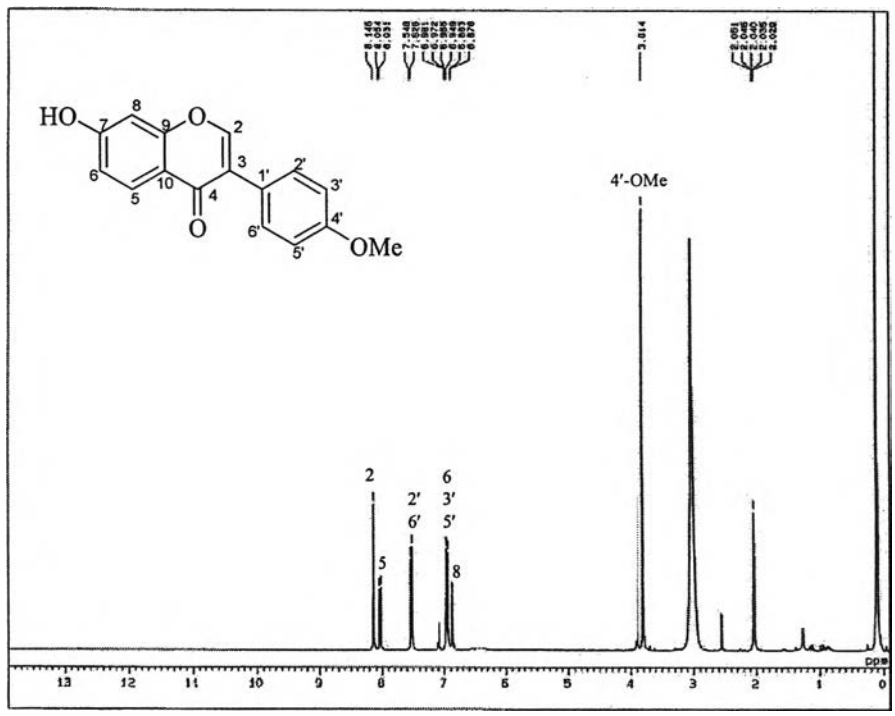

Figure 158 ^{1}H NMR (400 MHz) Spectrum of compound DP24 (acetone-d_6)

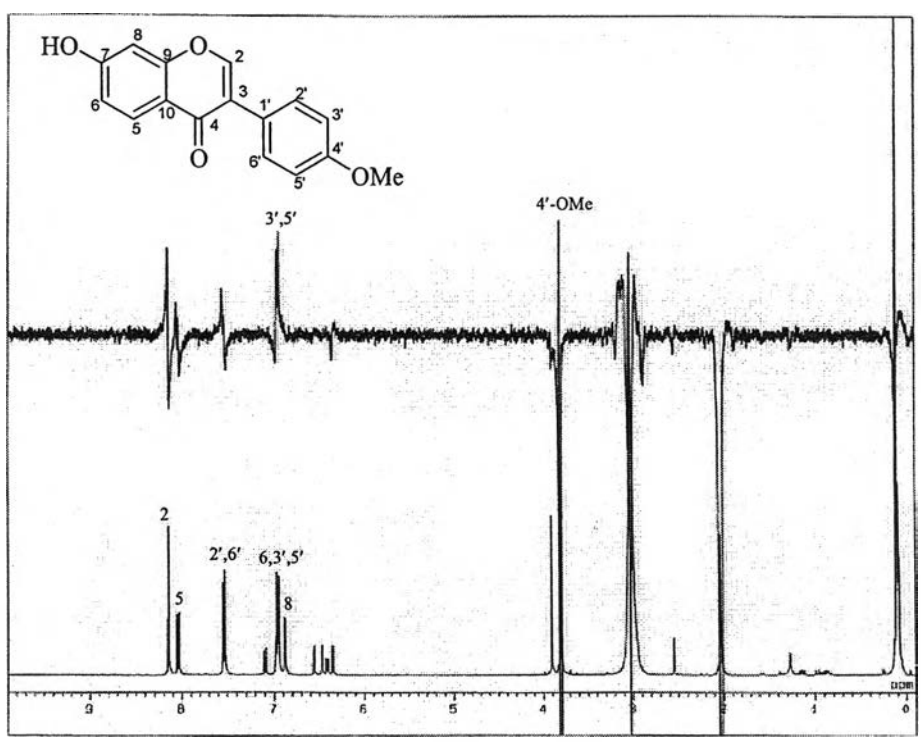

Figure 159 NOE difference Spectrum of compound DP24 (acetone-d_6)

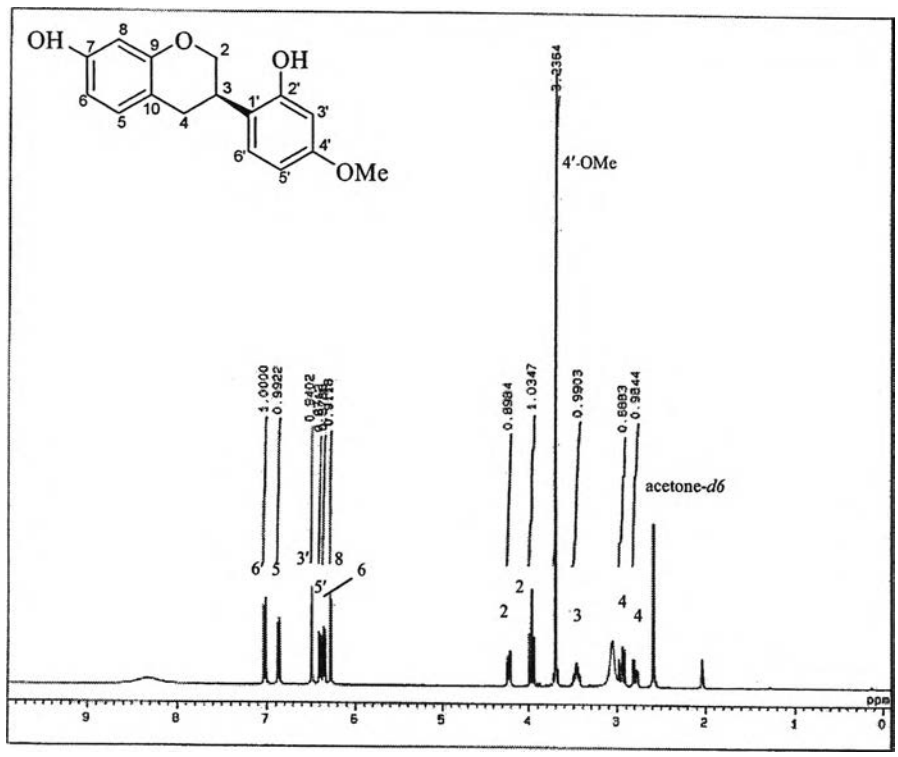

Figure 160 ^{1}H NMR (400 MHz) Spectrum of compound DP25 (acetone-d_6)

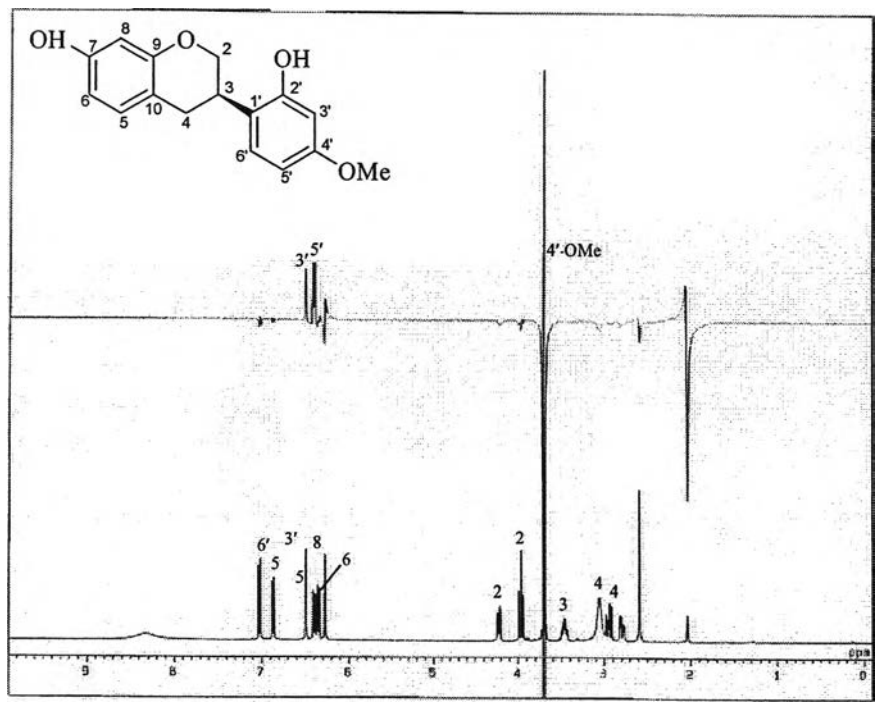

Figure 161 NOE difference Spectrum of compound DP25 (acetone-d_6)

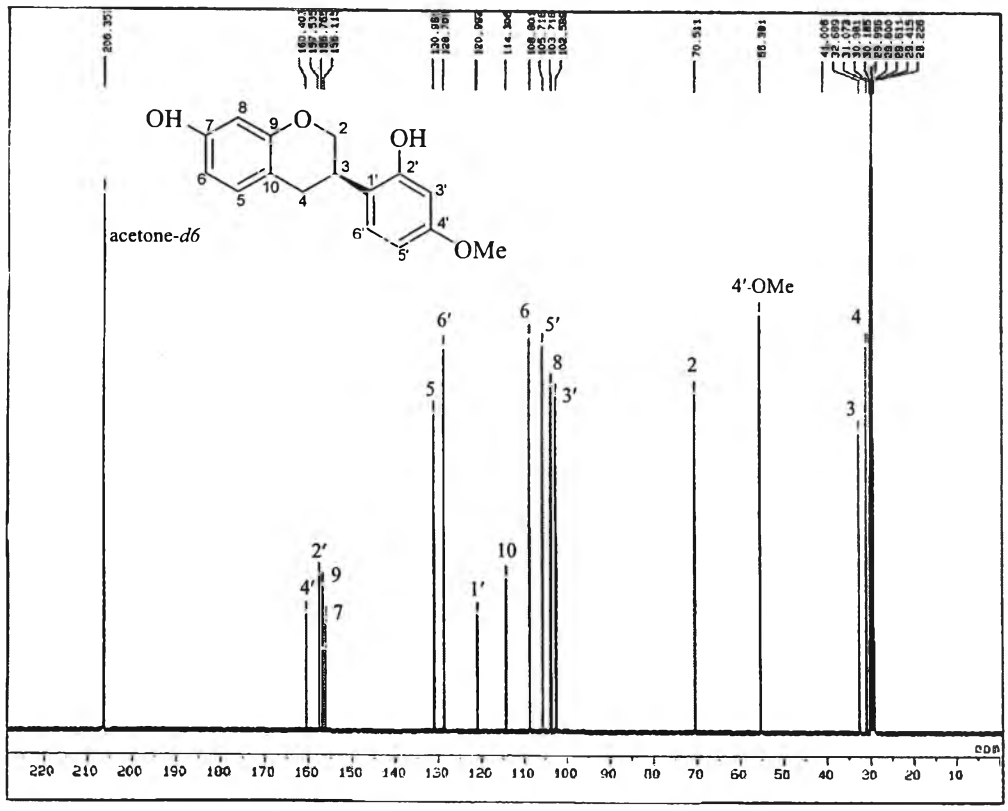

Figure 162 ^{13}C NMR (100.4 MHz) Spectrum of compound DP25 (acetone-d_6)

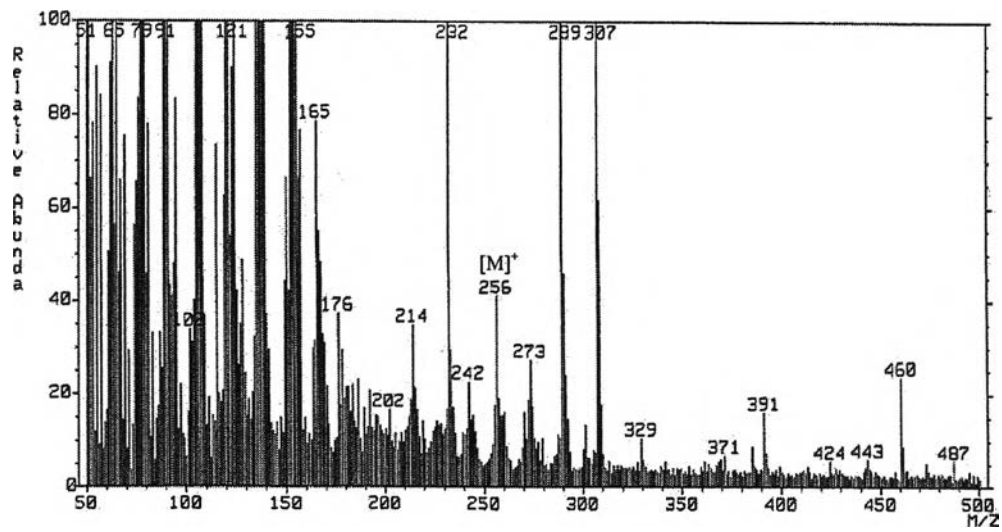

Figure 163 FABMS Spectrum of compound DP26

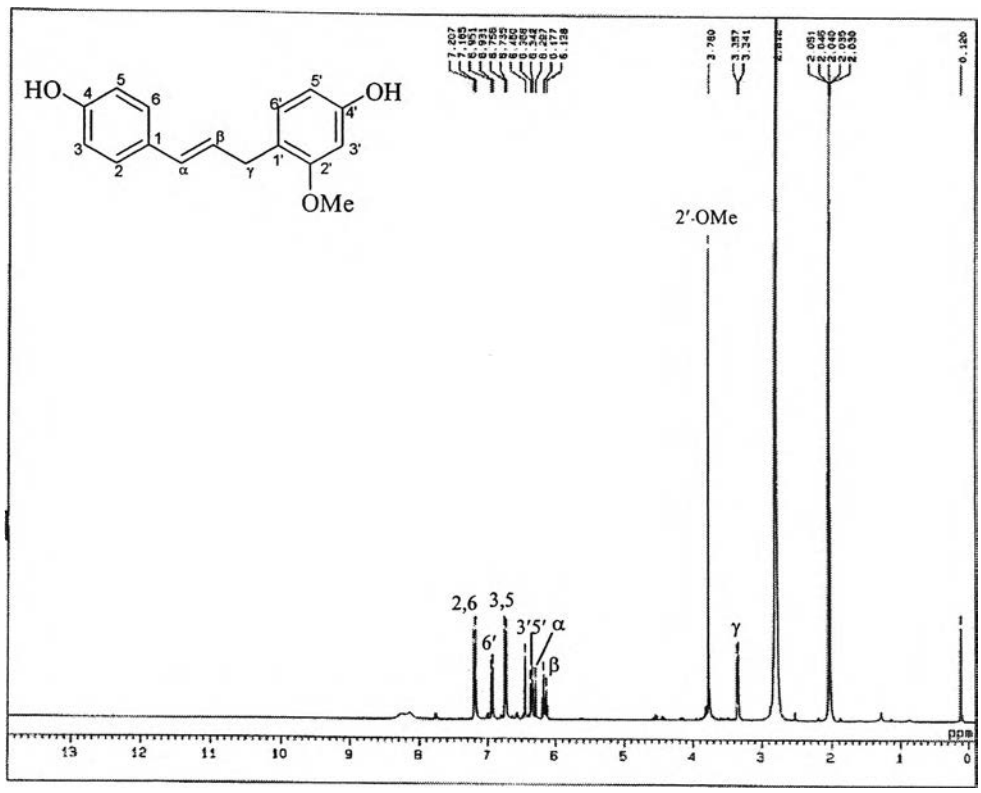

Figure 164 ^{1}H NMR (400 MHz) Spectrum of compound DP26 (acetone-d_6)

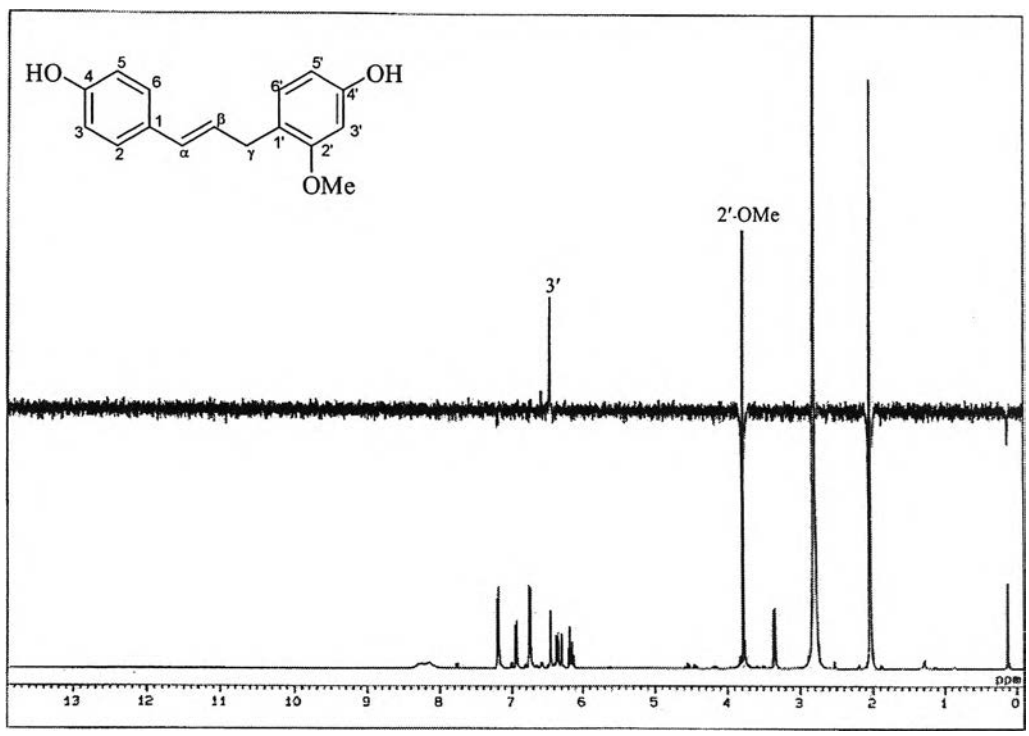

Figure 165 NOE difference Spectrum of compound DP26 (acetone-d_6)

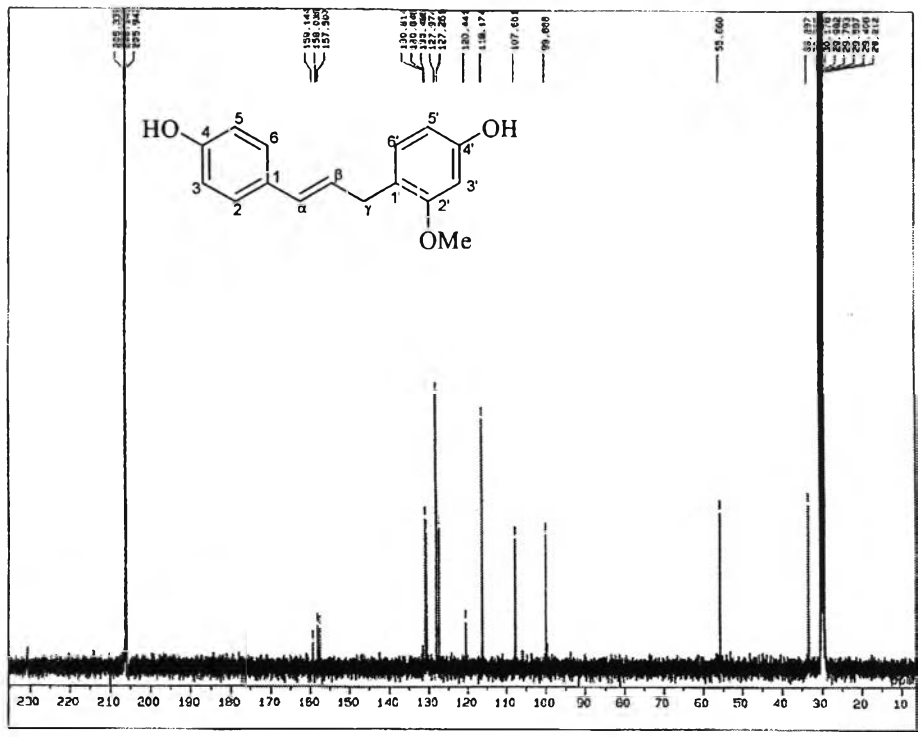

Figure 166 ^{13}C NMR (100.4 MHz) Spectrum of compound DP26 (acetone-d_6)

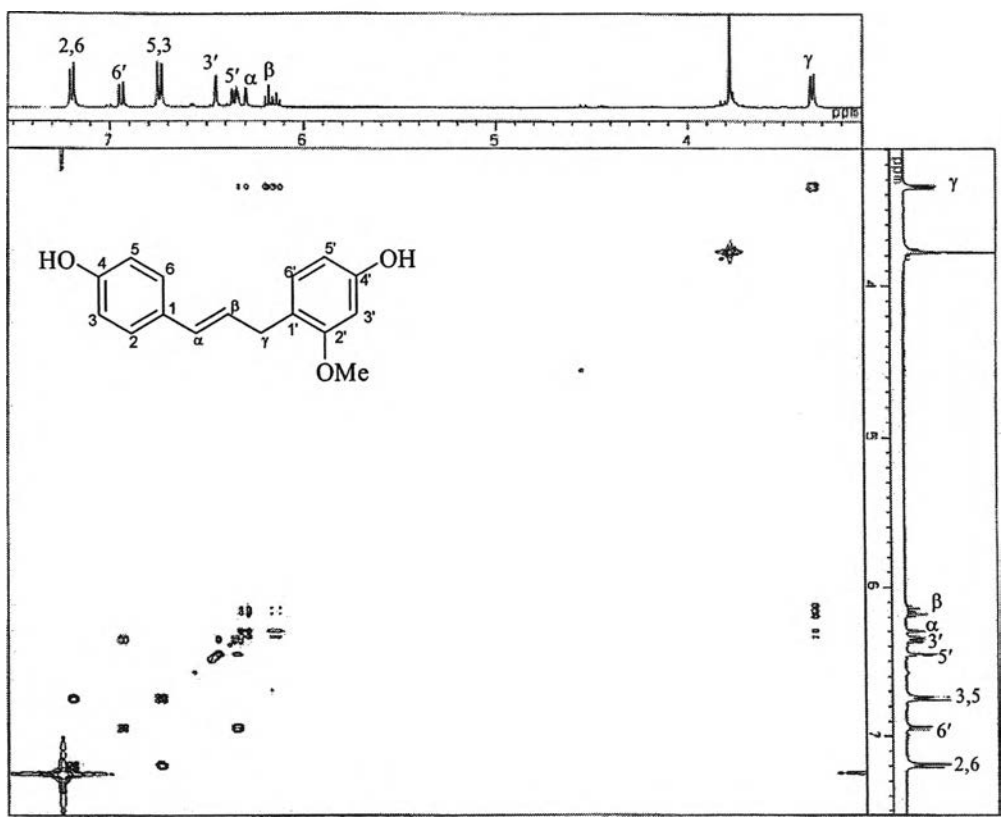

Figure 167 ^{1}H-^{1}H COSY Spectrum of compound DP26 (acetone-d_6)

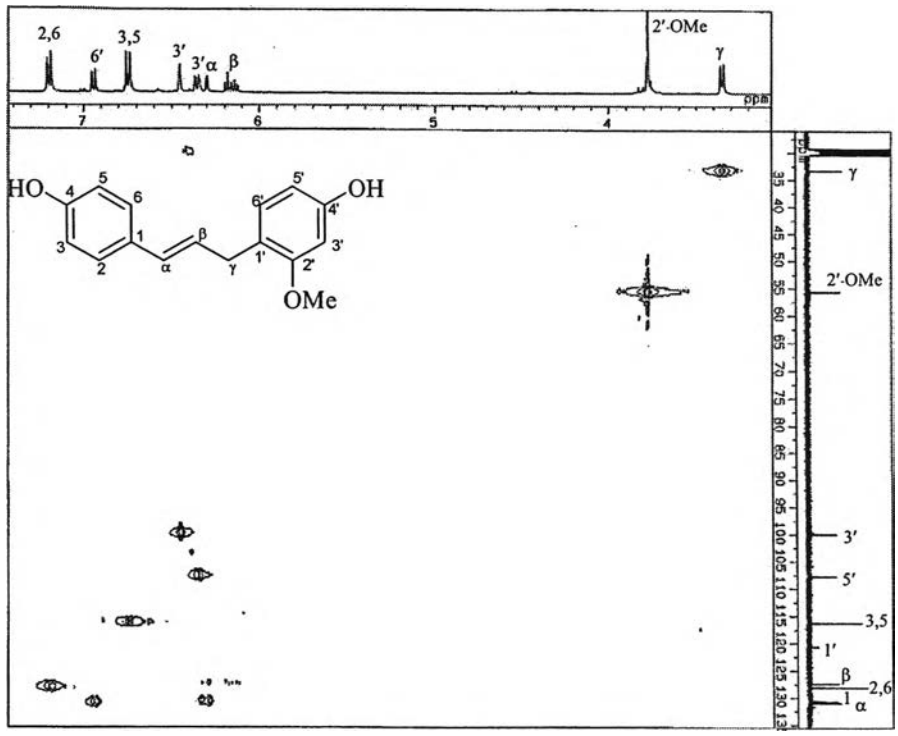

Figure 168 HMQC Spectrum of compound DP26 (acetone-d_6)

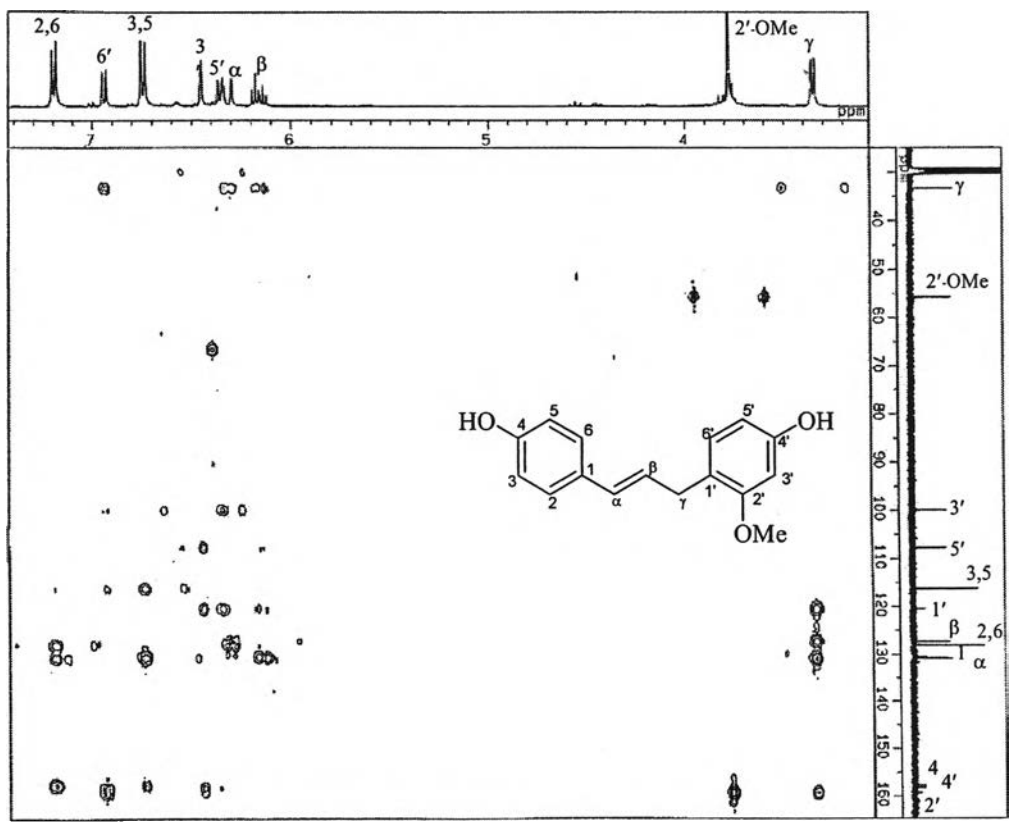

Figure 169 HMBC Spectrum of compound DP26 (acetone-d_6)

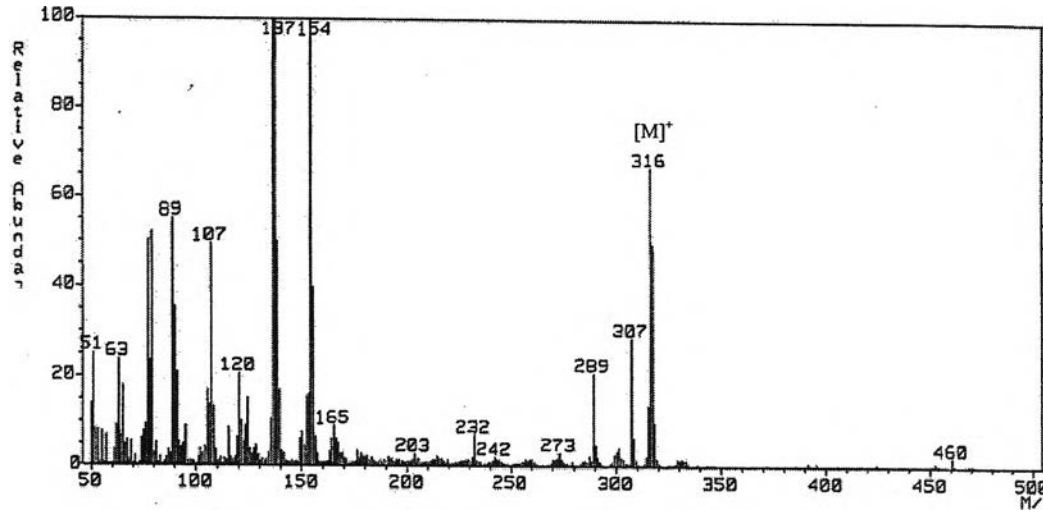

Figure 170 FABMS Spectrum of compound of DP28

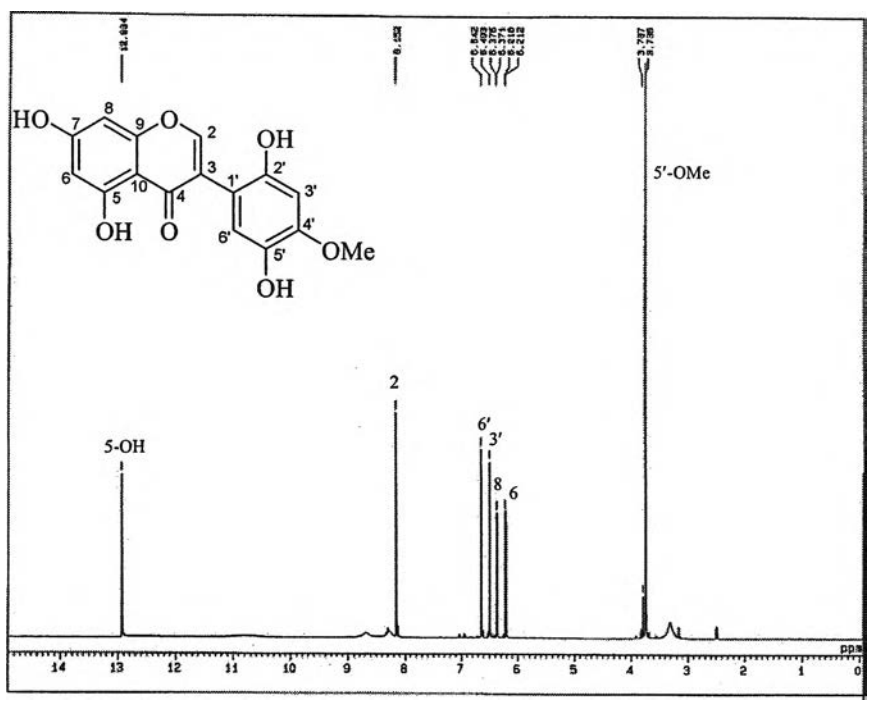

Figure 171 ^{1}H NMR (400 MHz) Spectrum of compound DP28 (DMSO-d_6)

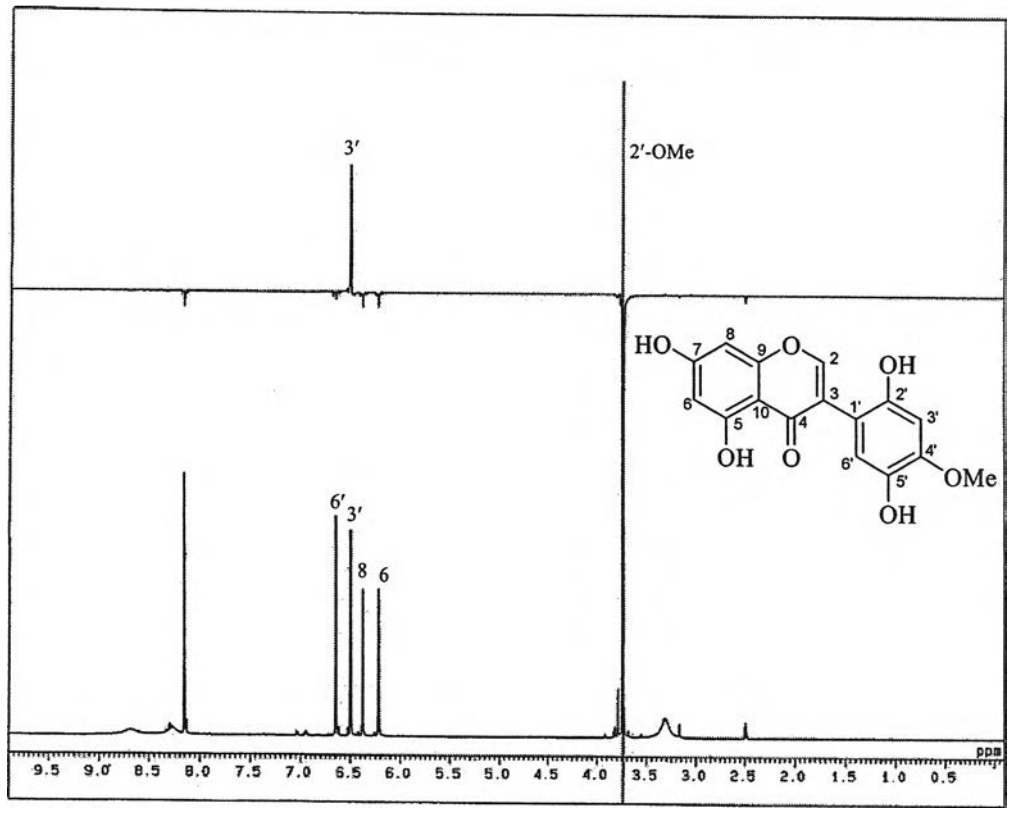

Figure 172 NOE difference Spectrum of compound DP28 (DMSO-d_6)

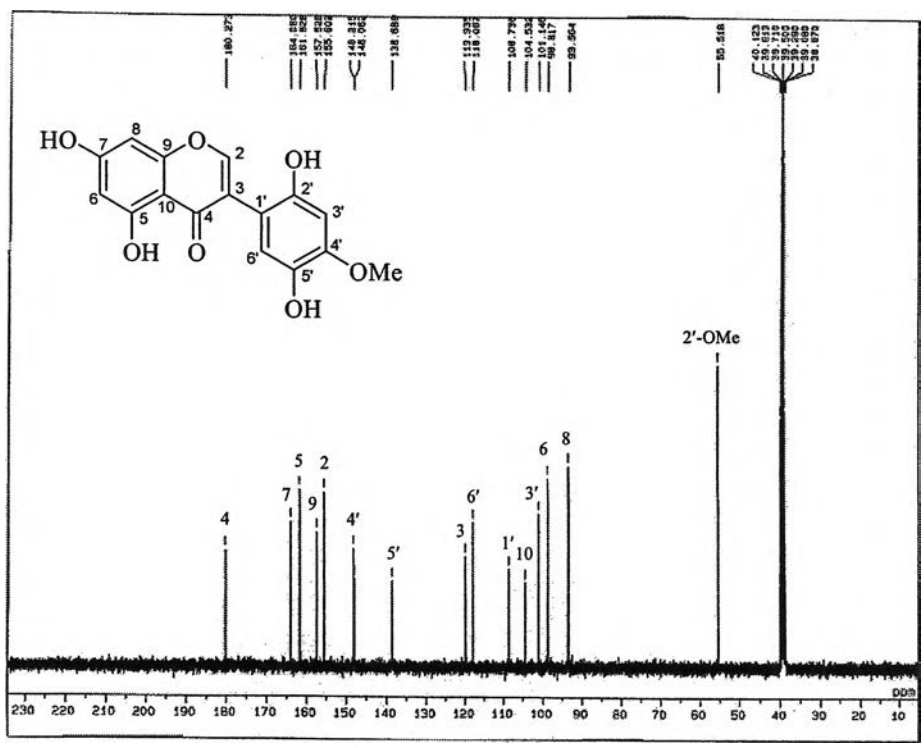

Figure 173 ^{13}C NMR (100.4 MHz) Spectrum of compound DP28 (DMSO-d_6)

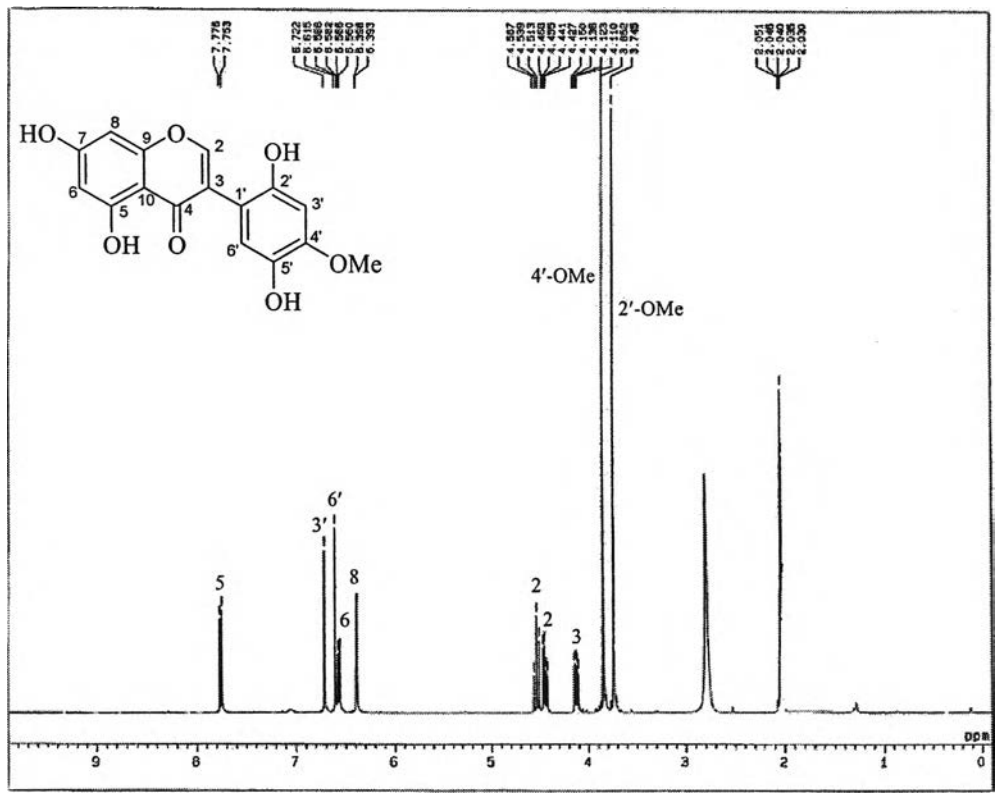

Figure 174 ^{1}H NMR (400 MHz) Spectrum of compound DP28 (acetone-d_6)

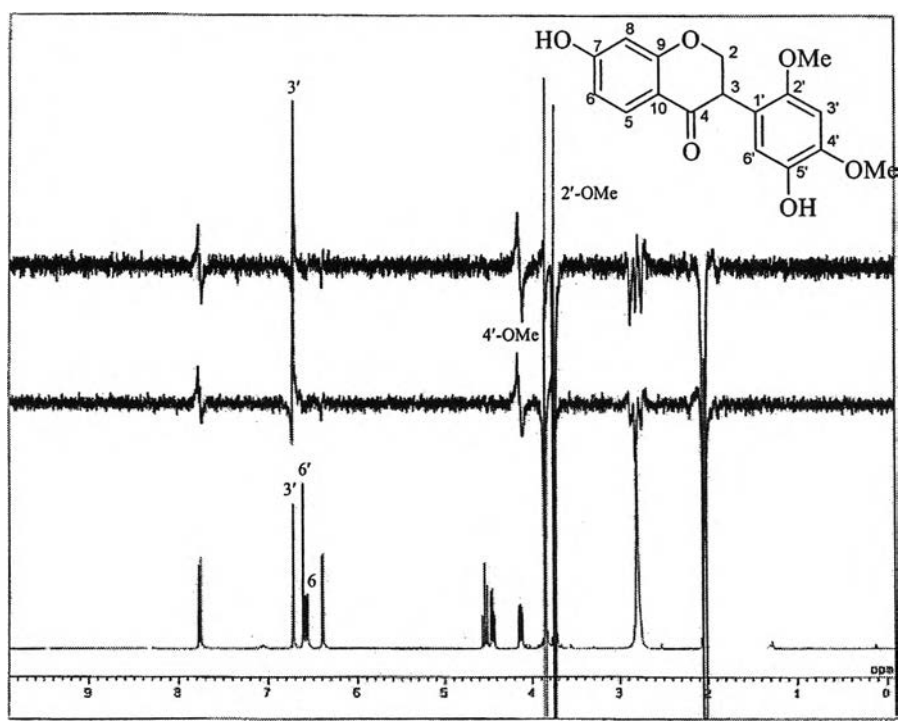

Figure 175 NOE difference Spectrum of compound DP29 (acetone-d_6)

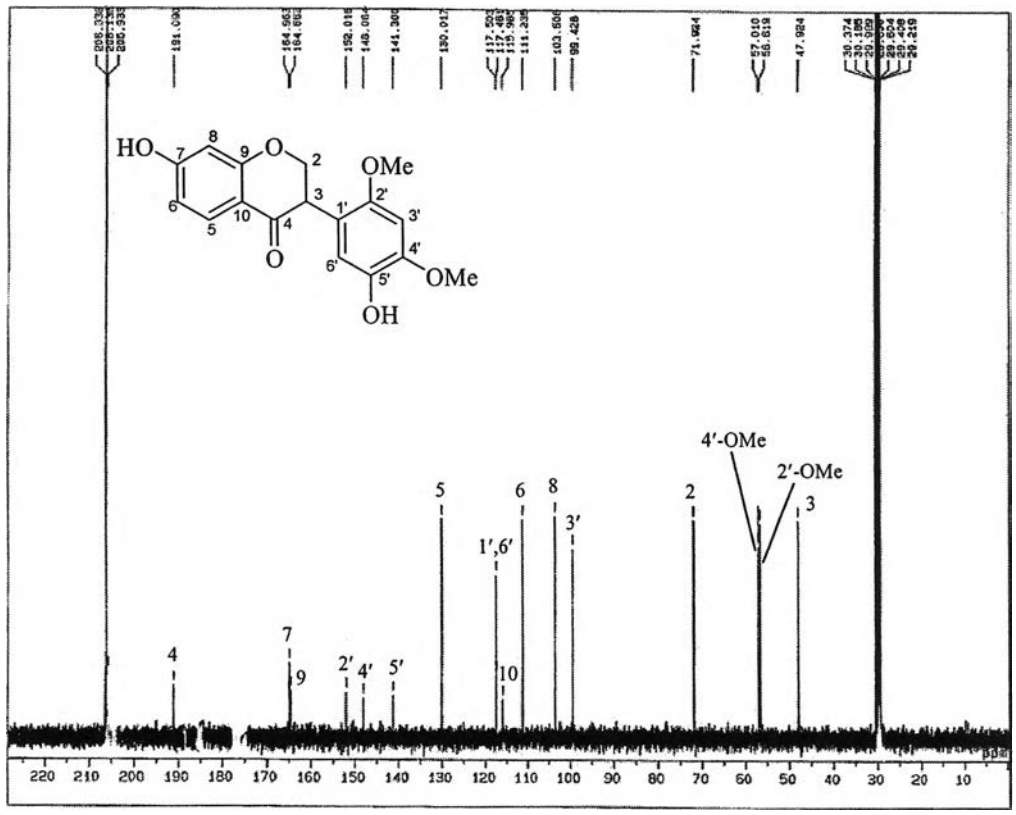

Figure 176 ^{13}C NMR (100.4 MHz) Spectrum of compound DP29 (acetone-d_6)

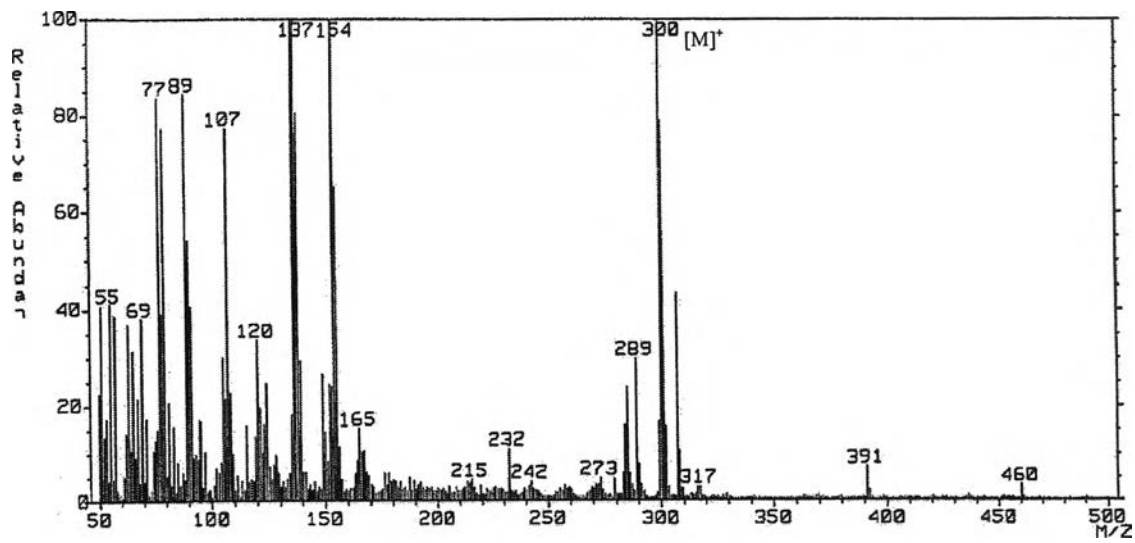

Figure 177 FABMS Spectrum of compound DP31

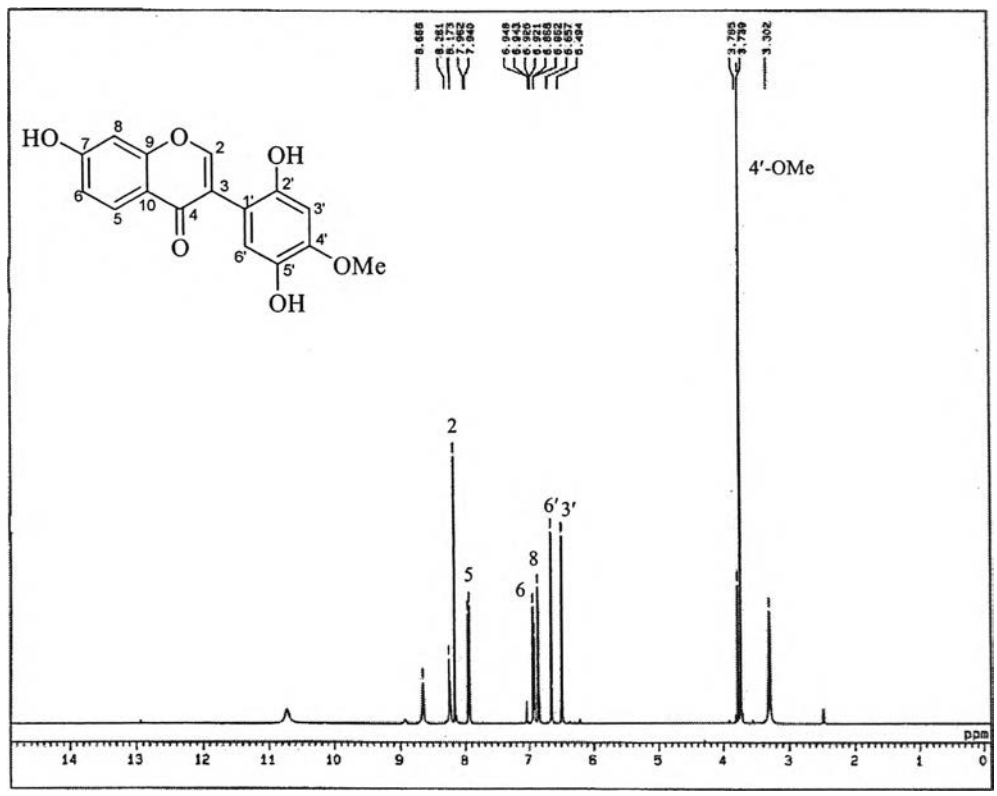

Figure 178 ^{1}H NMR Spectrum of compound DP31 (DMSO-d_6)

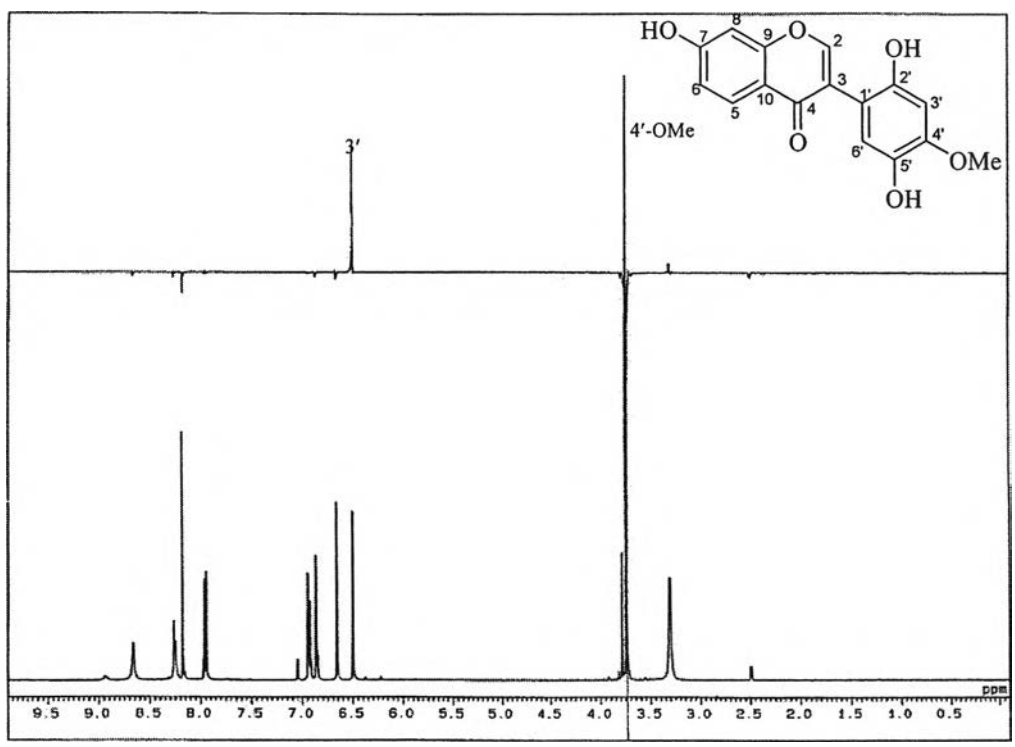

Figure 179 NOE difference Spectrum of compound DP31 (DMSO-d_6)

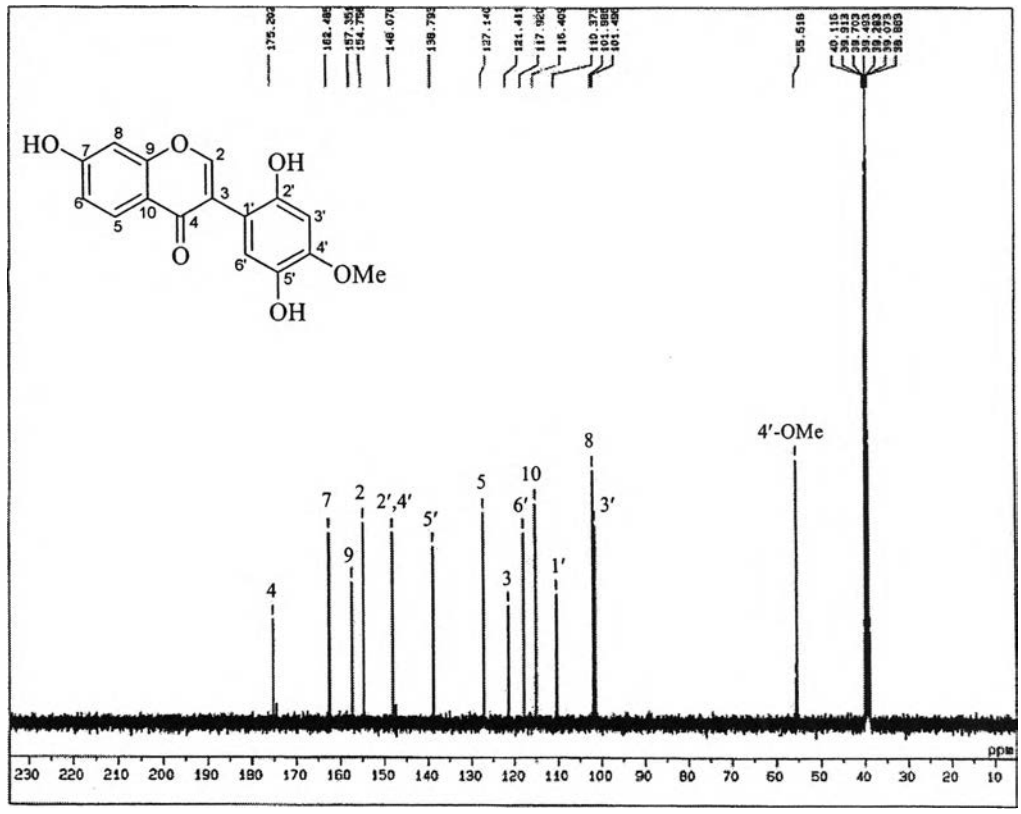

Figure 180 ^{13}C NMR Spectrum of compound DP31 (DMSO-d_6)

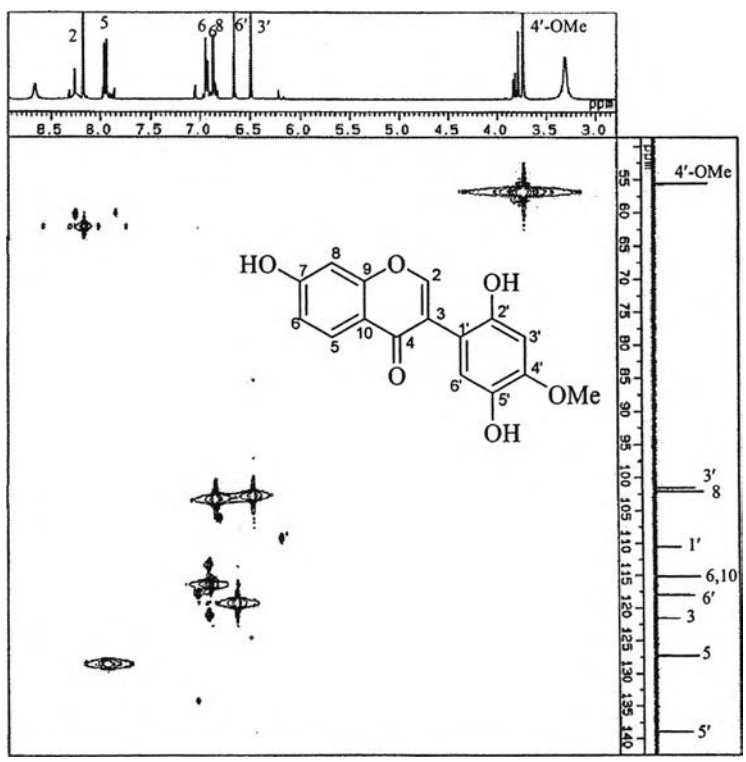

Figure 181 HMQC Spectrum of compound DP31 (DMSO-d_6)

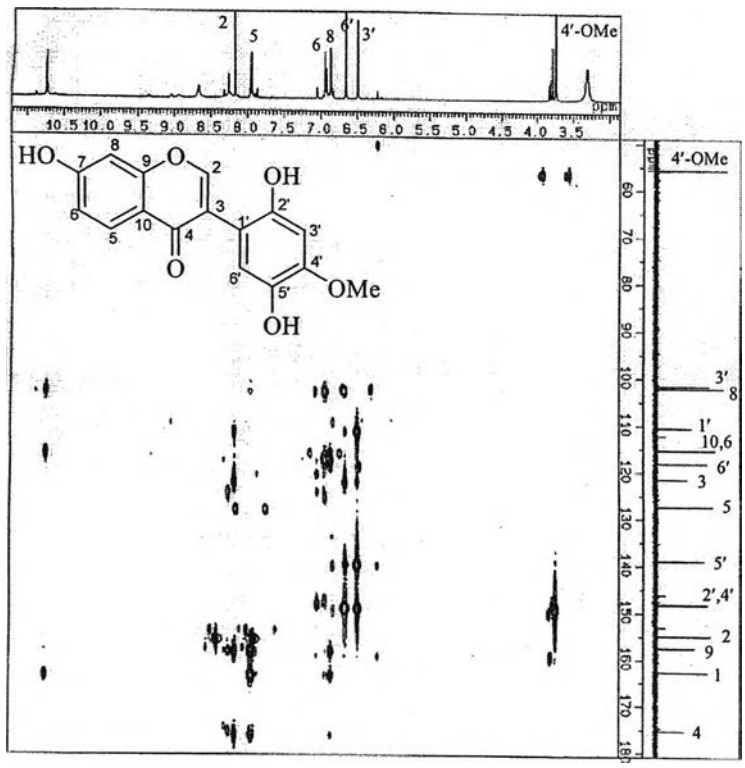

Figure 182 HMBC Spectrum of compound DP31 (DMSO-d_6)

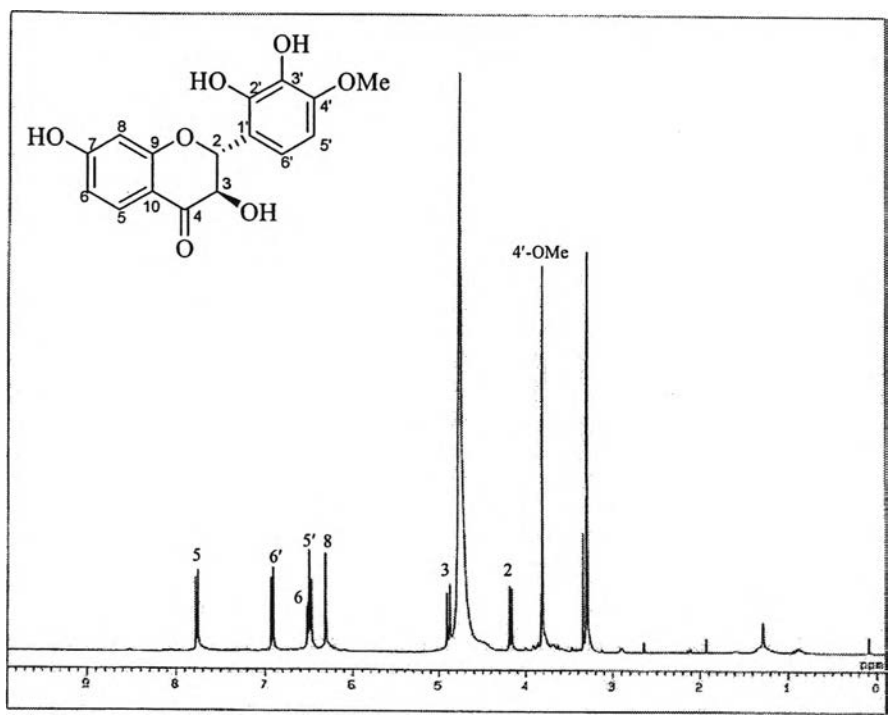

Figure 183 ^{1}H NMR Spectrum of compound DP32 (acetone-d_6)

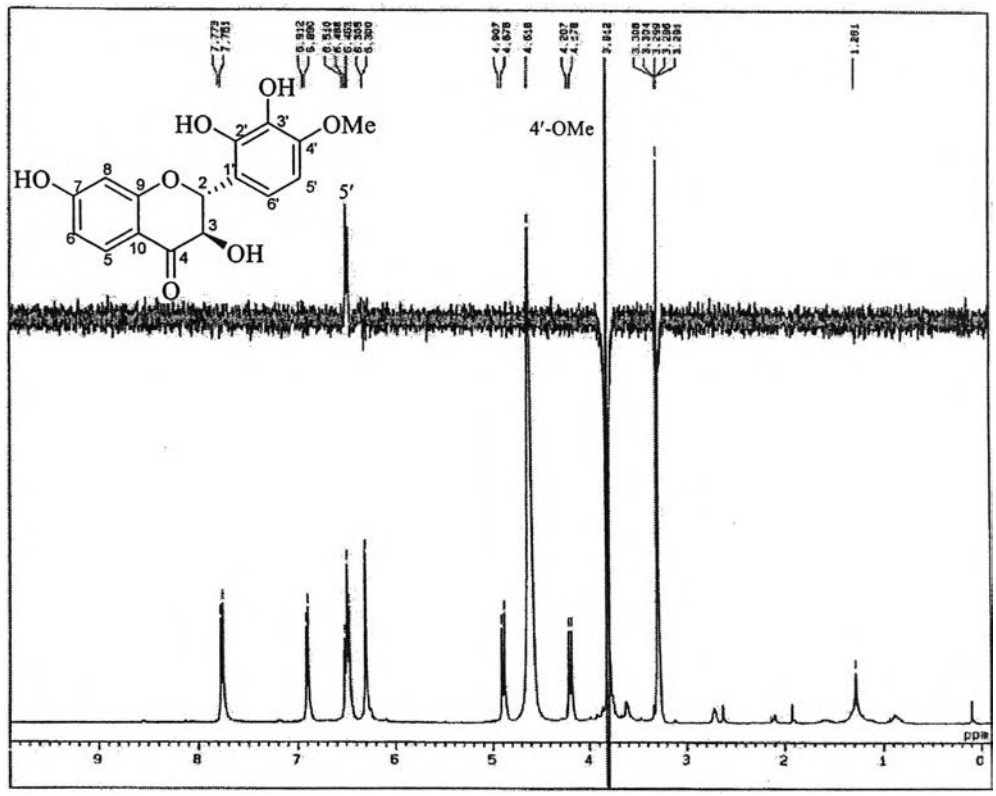

Figure 184 NOE difference of compound DP32 (acetone-d_6)

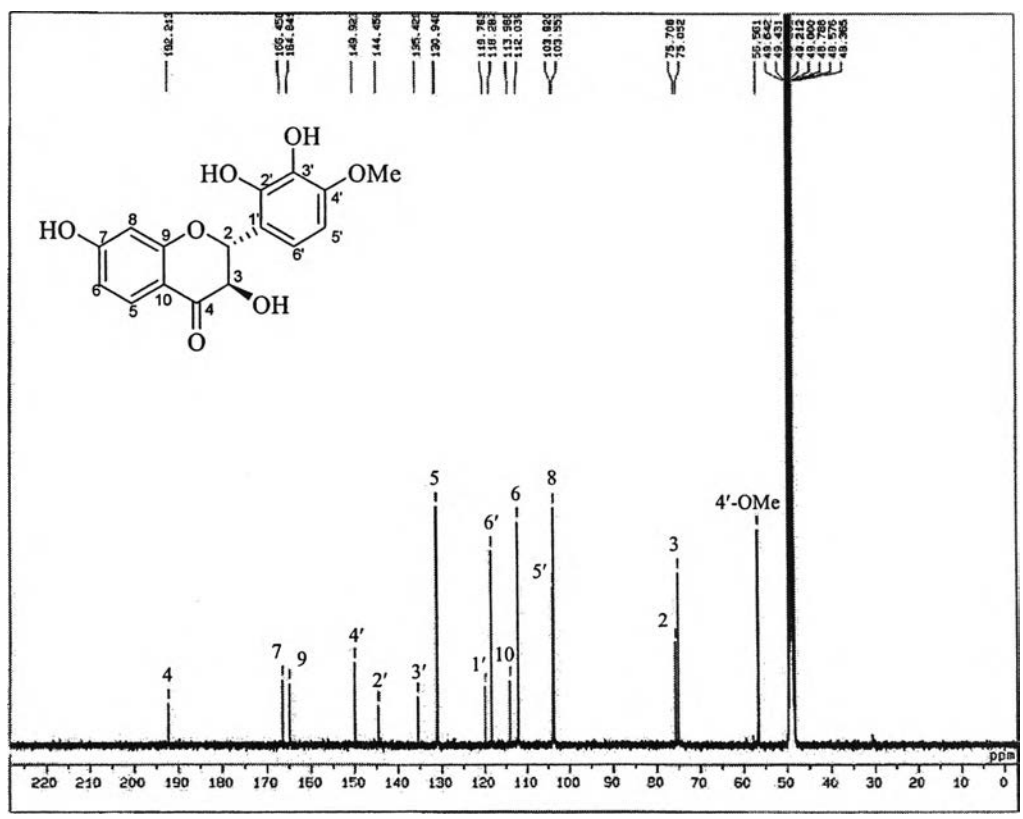

Figure 185 ^{13}C NMR Spectrum of compound DP 32 (MeOH-d_4)

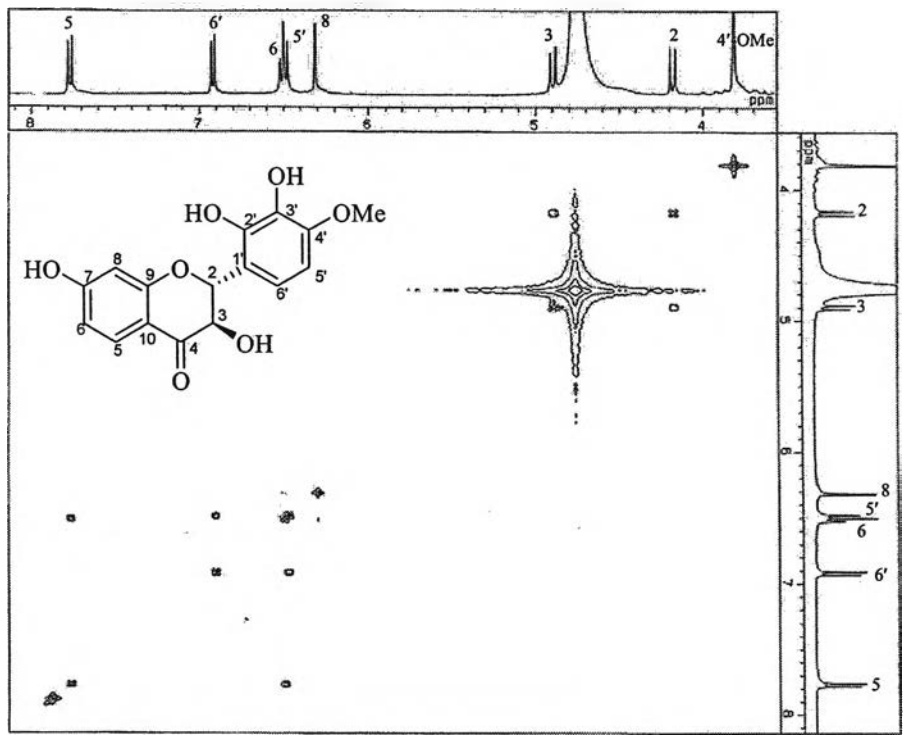

Figure 186 ^{1}H-^{1}H COSY Spectrum of compound DP32 (acetone-d_6)

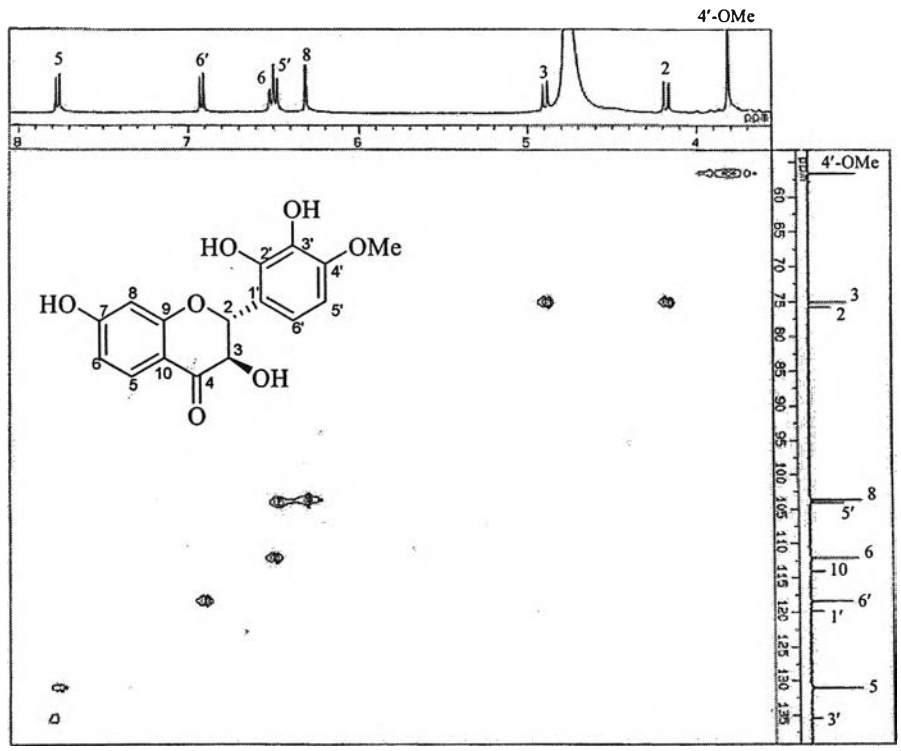

Figure 187 HMQC Spectrum of compound DP32 (acetone-d_6)

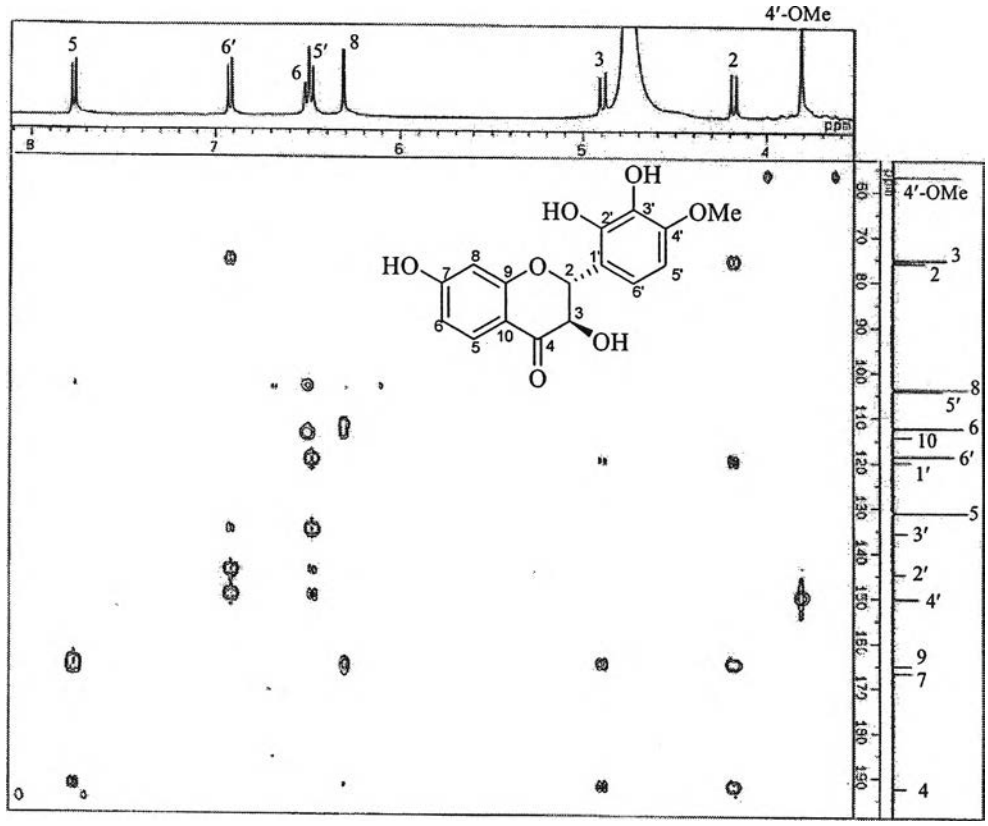

Figure 188 HMBC Spectrum of compound DP32 (acetone-d_6)

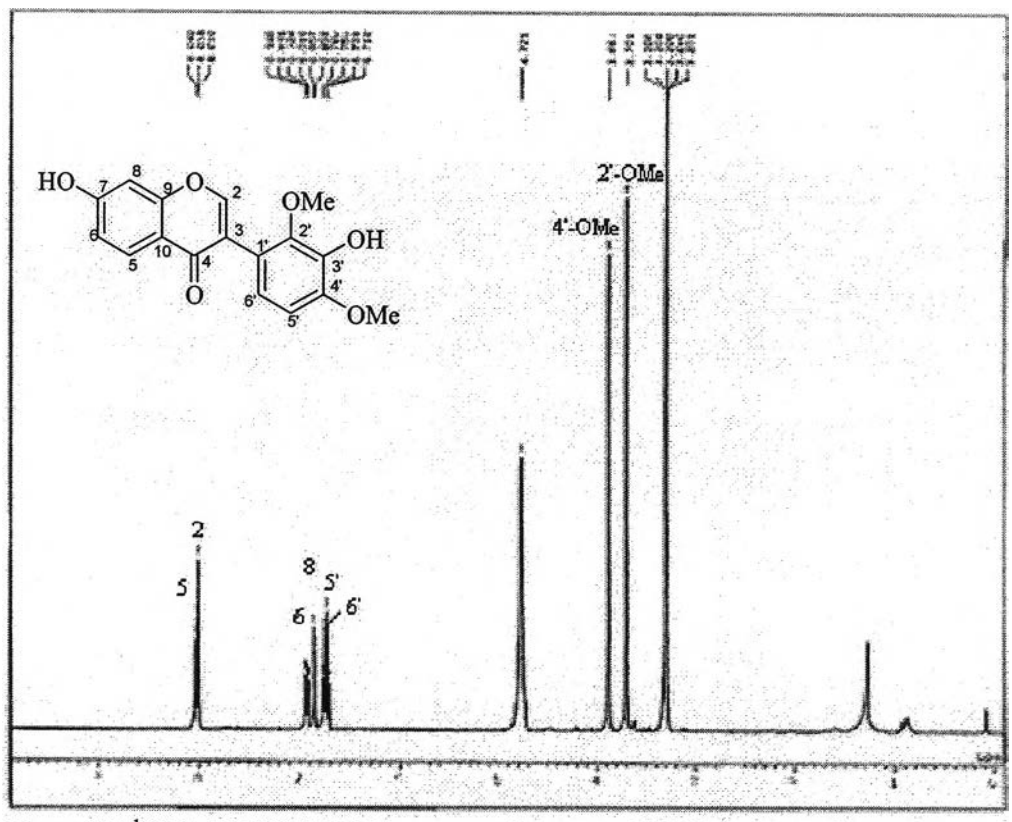

Figure 189 ^{1}H NMR (400 MHz) Spectrum of compound DP33 (acetone-d_6)

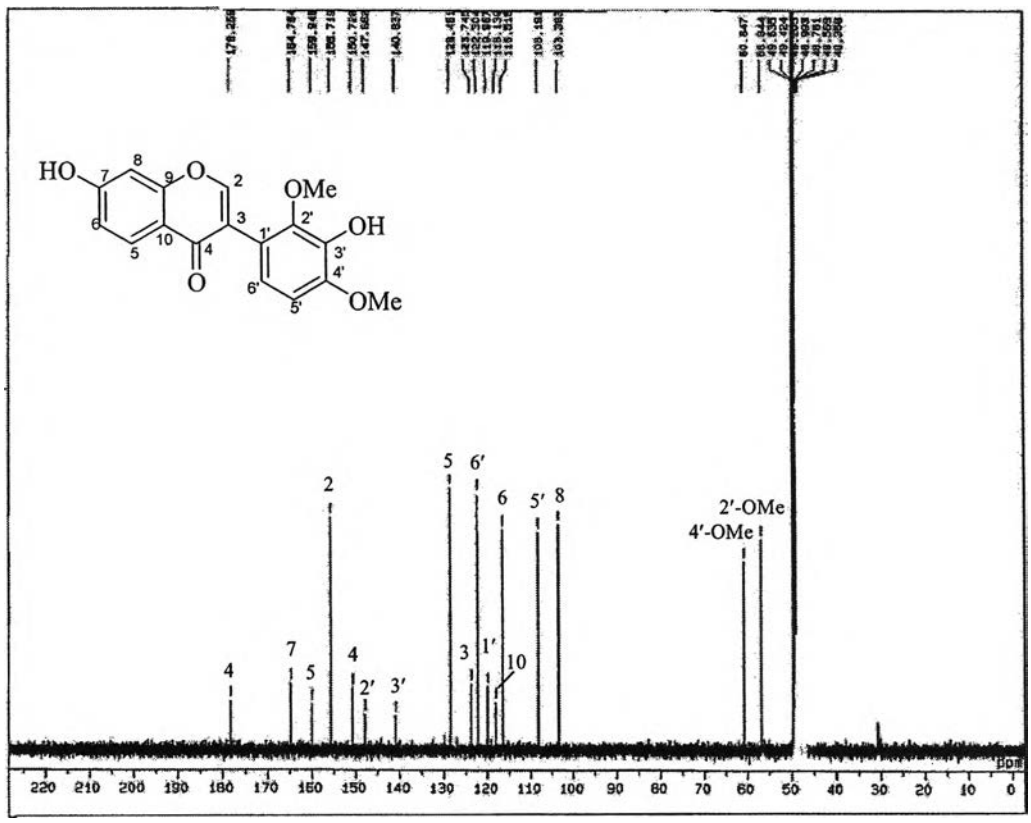

Figure 190 ^{13}C NMR (100.4 MHz) Spectrum of compound DP33 (MeOH-d_4)

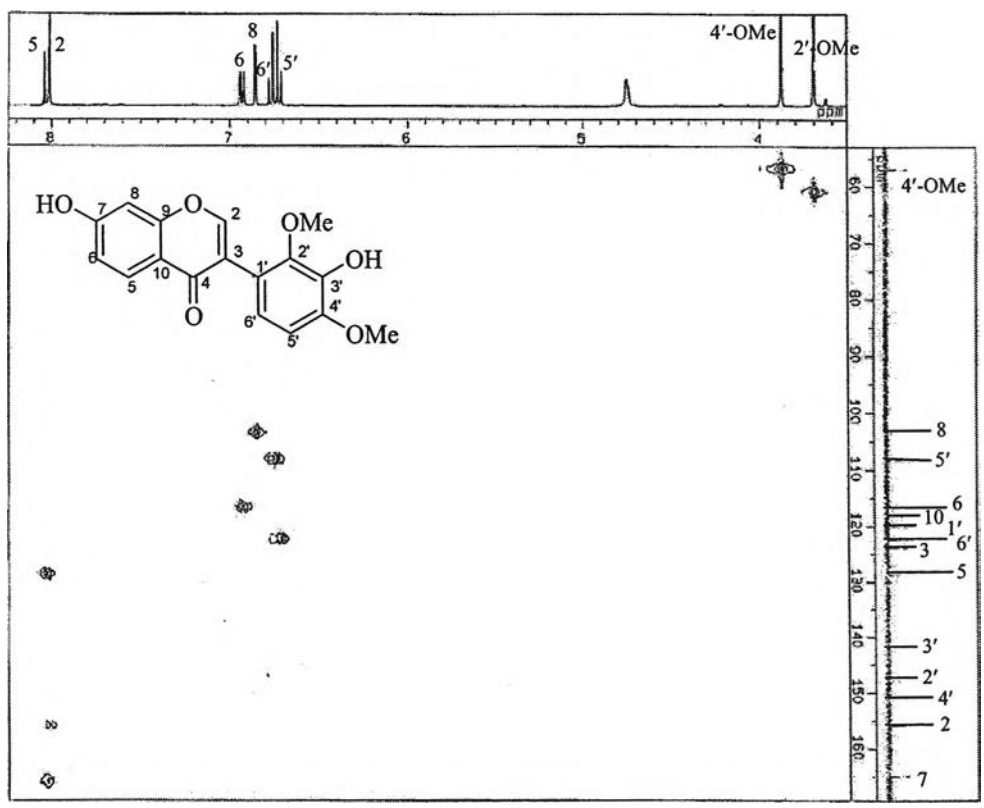

Figure 191 HMQC Spectrum of compound DP33 (acetone-d_6)

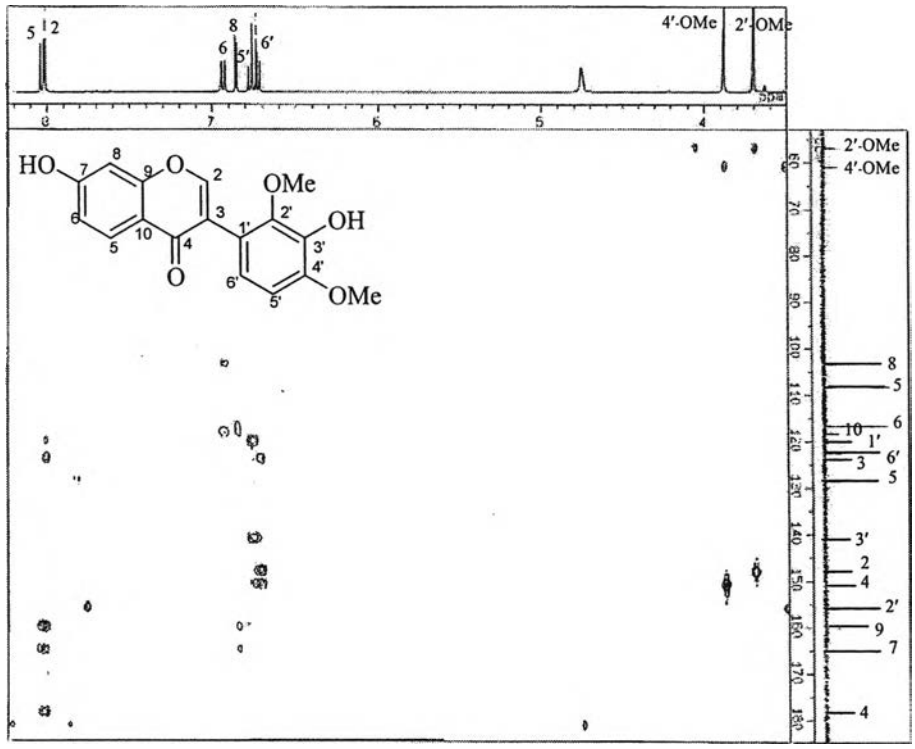

Figure 192 HMBC Spectrum of compound DP33 (acetone-d_6)

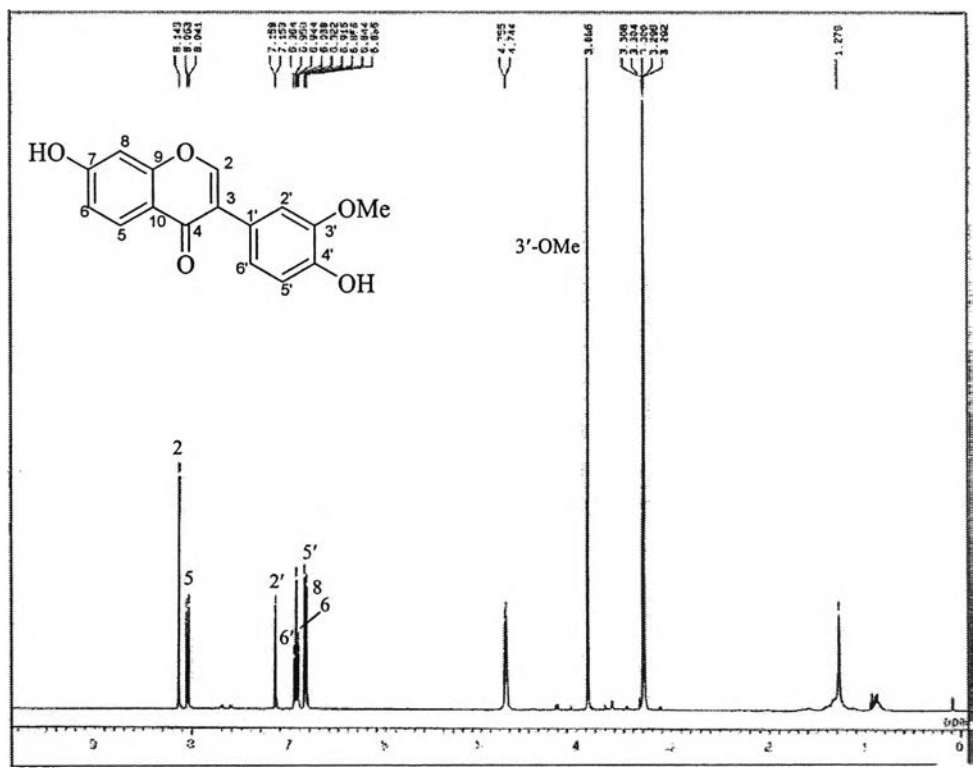

Figure 193 ^{1}H NMR (400 MHz) Spectrum of compound DP34 (MeOH-d_4)

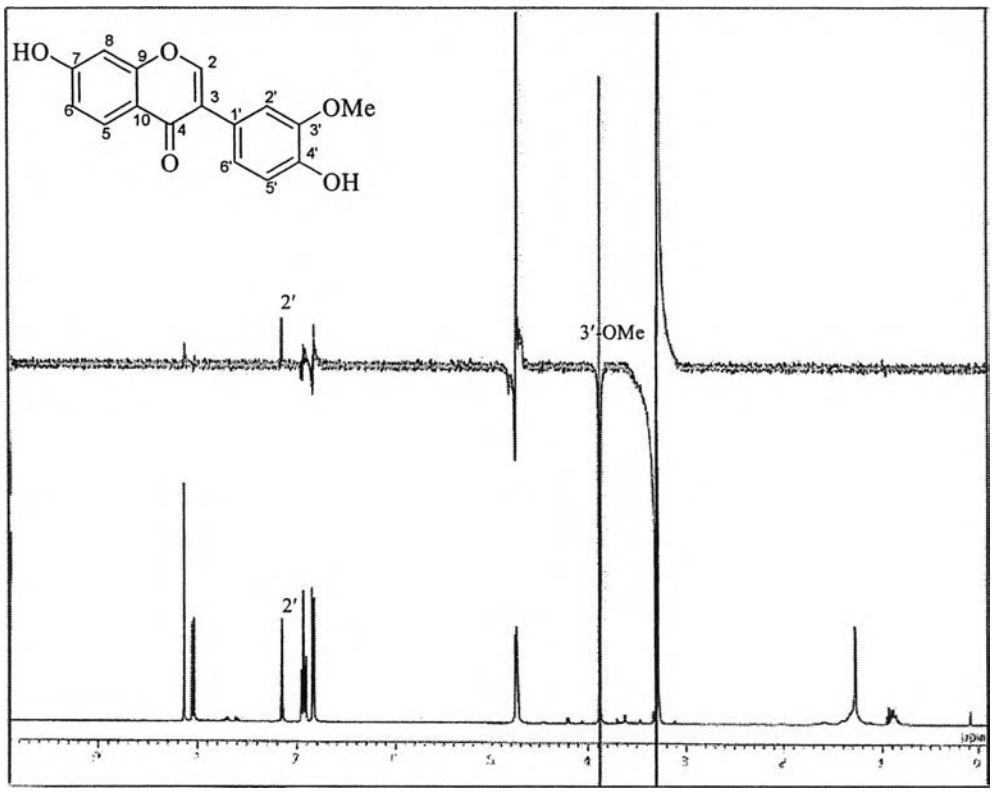

Figure 194 NOE difference Spectrum of compound DP34 (MeOH-d_4)

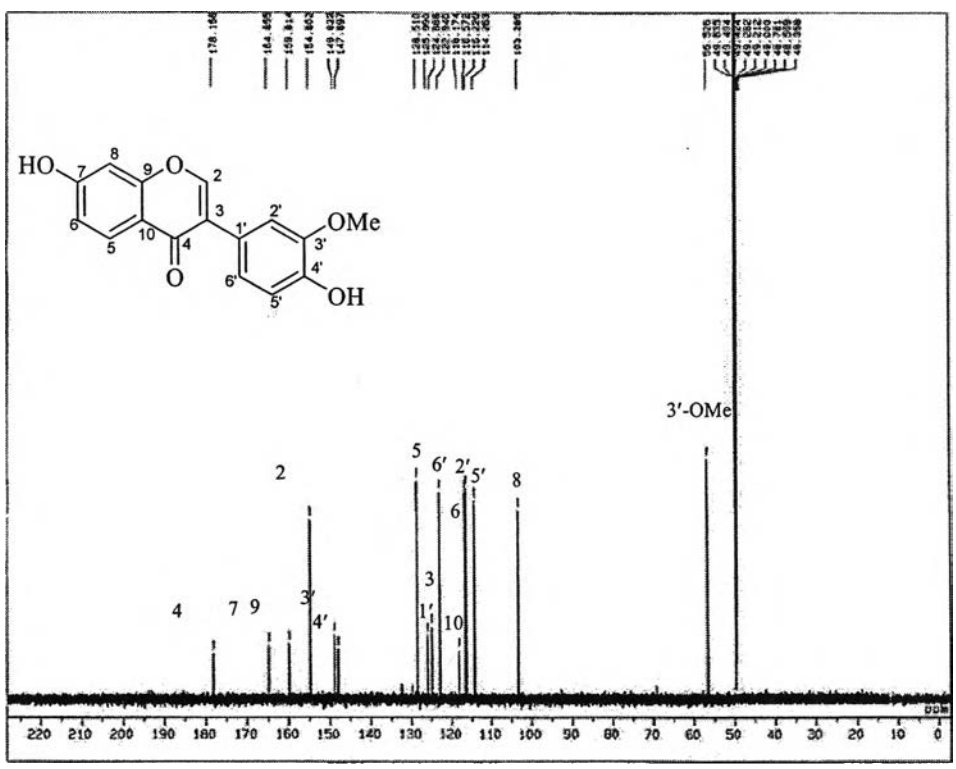

Figure 195 ^{13}C NMR (100.4 MHz) Spectrum of compound DP34 (MeOH-d_4)

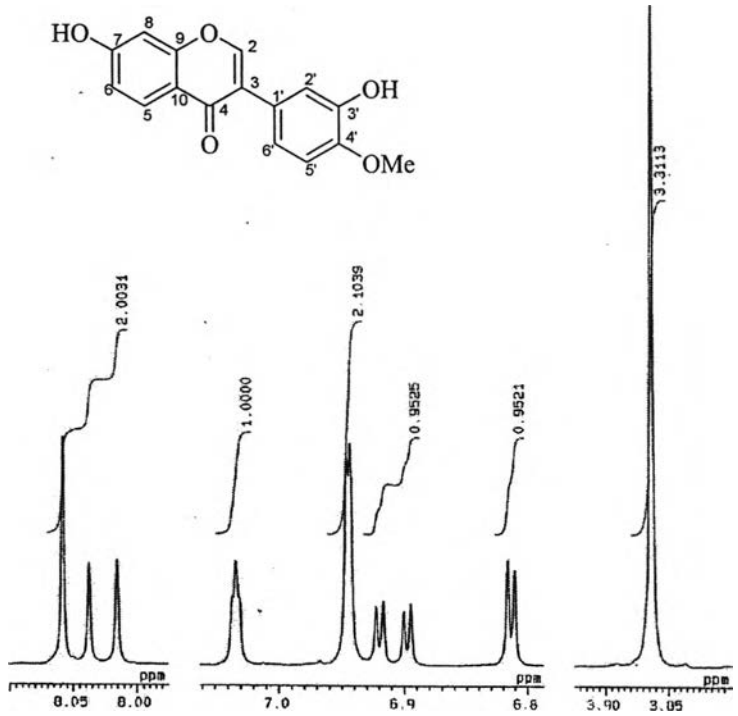

Figure 196 ^{1}H NMR 400 MHz) Spectrum of compound DP35 (MeOH-d_4)

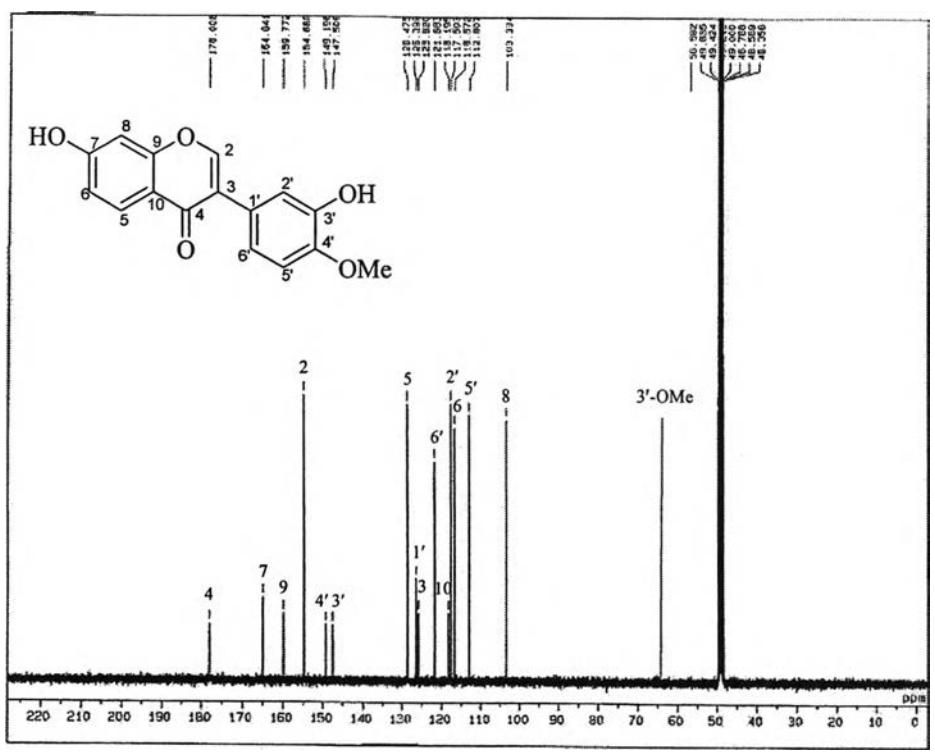

Figure 197 ^{13}C NMR (100.4 MHz) Spectrum of compound DP35 (MeOH-d_4)

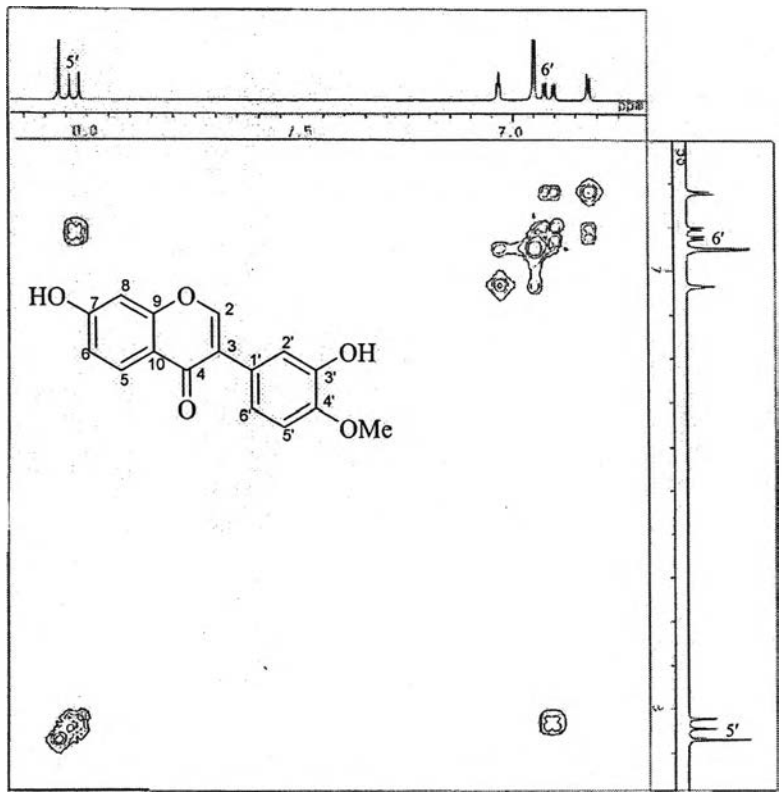

Figure 198 ^{1}H-^{1}H COSY Spectrum of compound DP35 (MeOH-d_4)

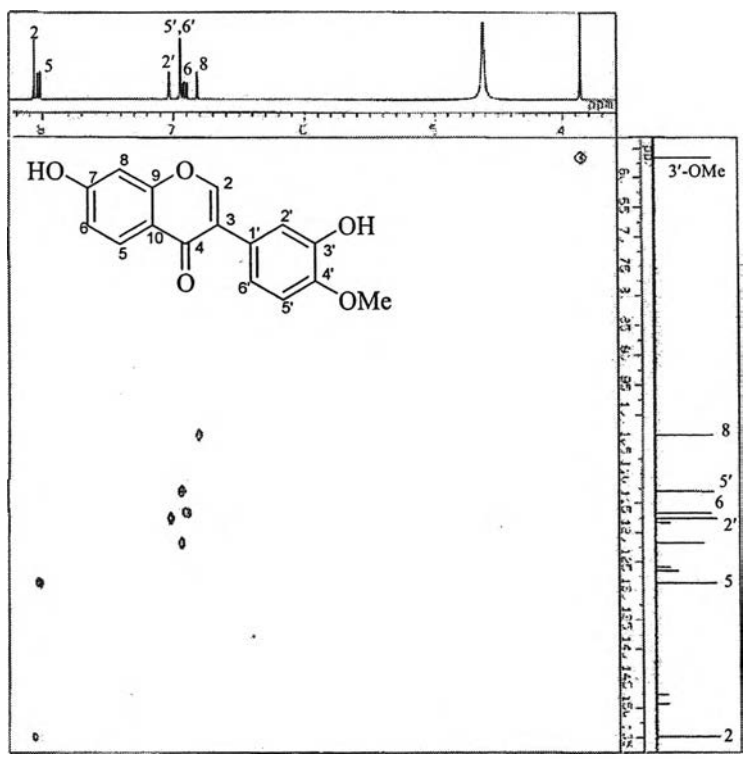

Figure 199 HMQC Spectrum of compound DP35 (MeOH-d_4)

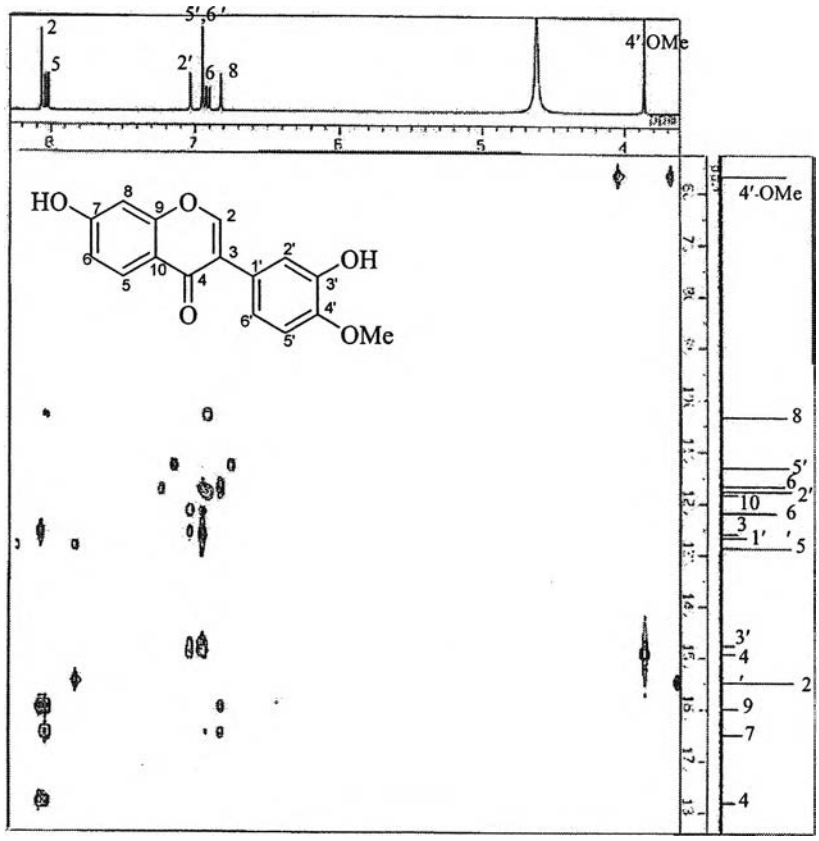

Figure 200 HMBC Spectrum of compound DP35 (MeOH-d_4)

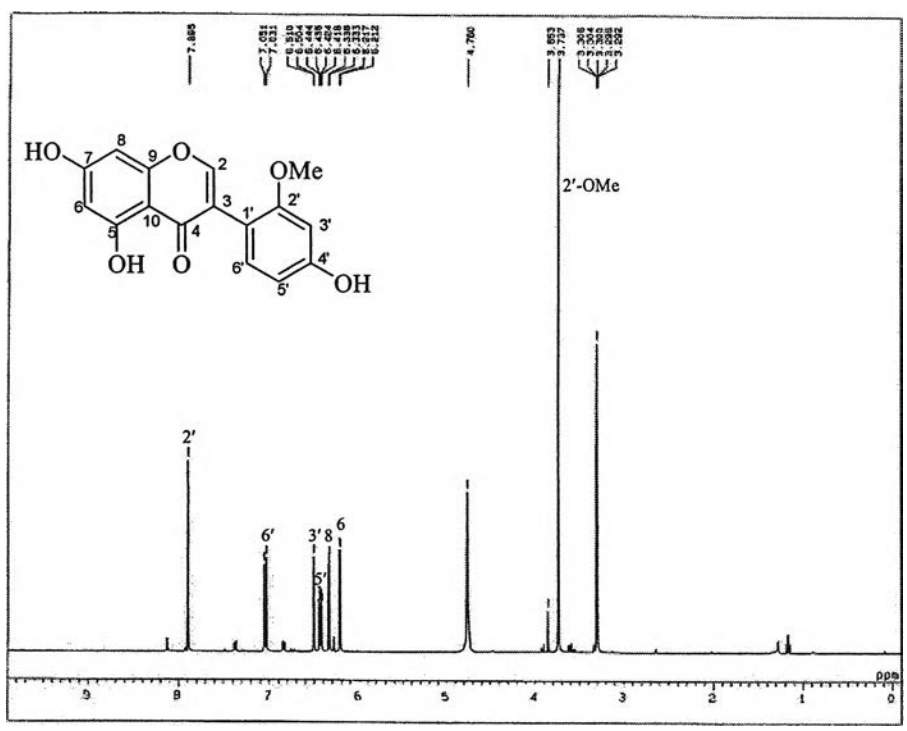

Figure 201 ^{1}H NMR (400 MHz) Spectrum of compound DP36 (MeOH-d_4)

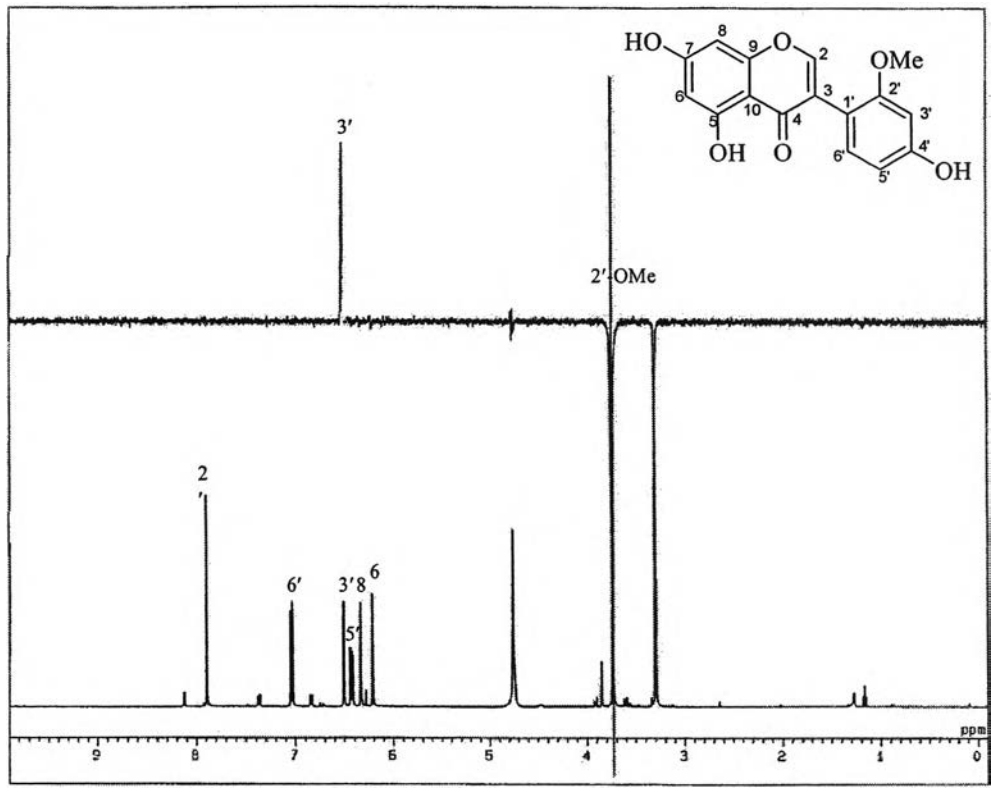

Figure 202 NOE difference Spectrum of compound DP36 (MeOH-d_4)

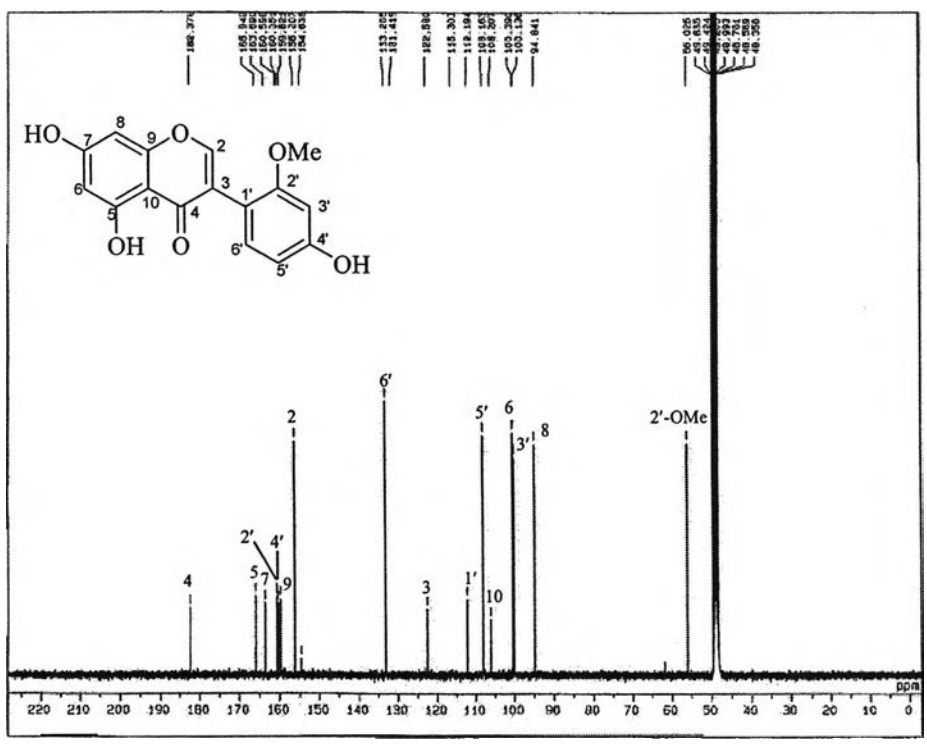

Figure 203 ^{13}C NMR (100.4 MHz) Spectrum of compound DP36 (MeOH-d_4)

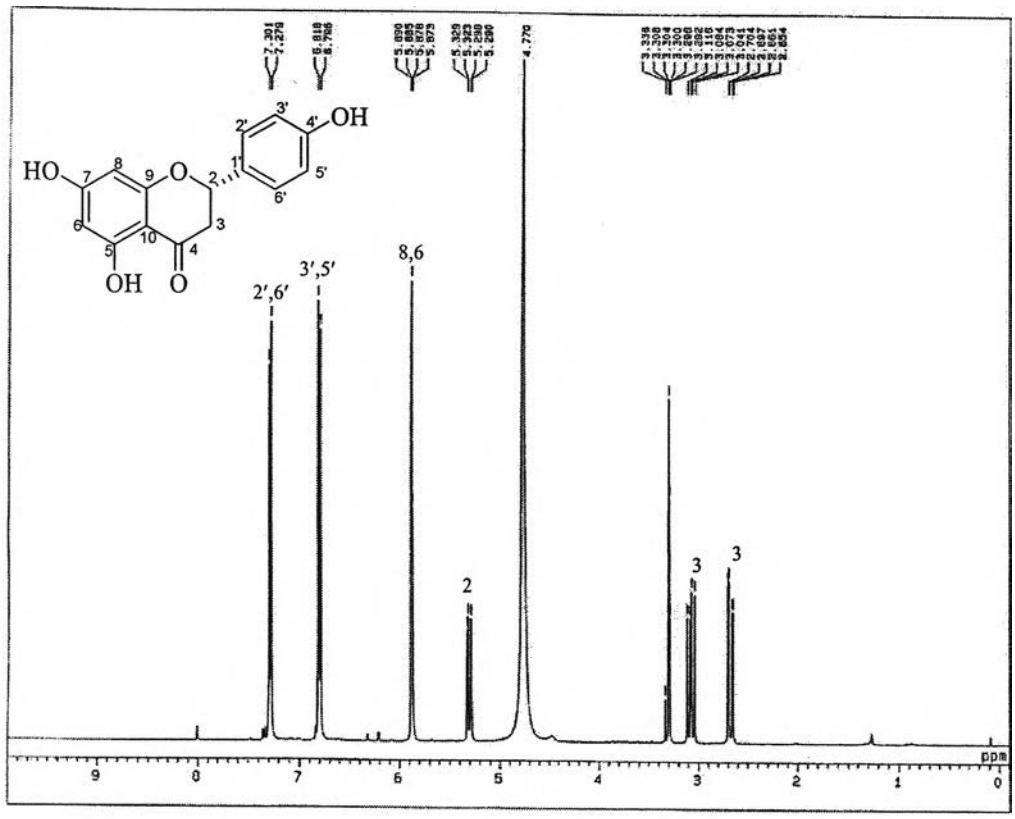

Figure 204 ^{1}H NMR (400 MHz) Spectrum of compound DP37 (acetone-d_6)

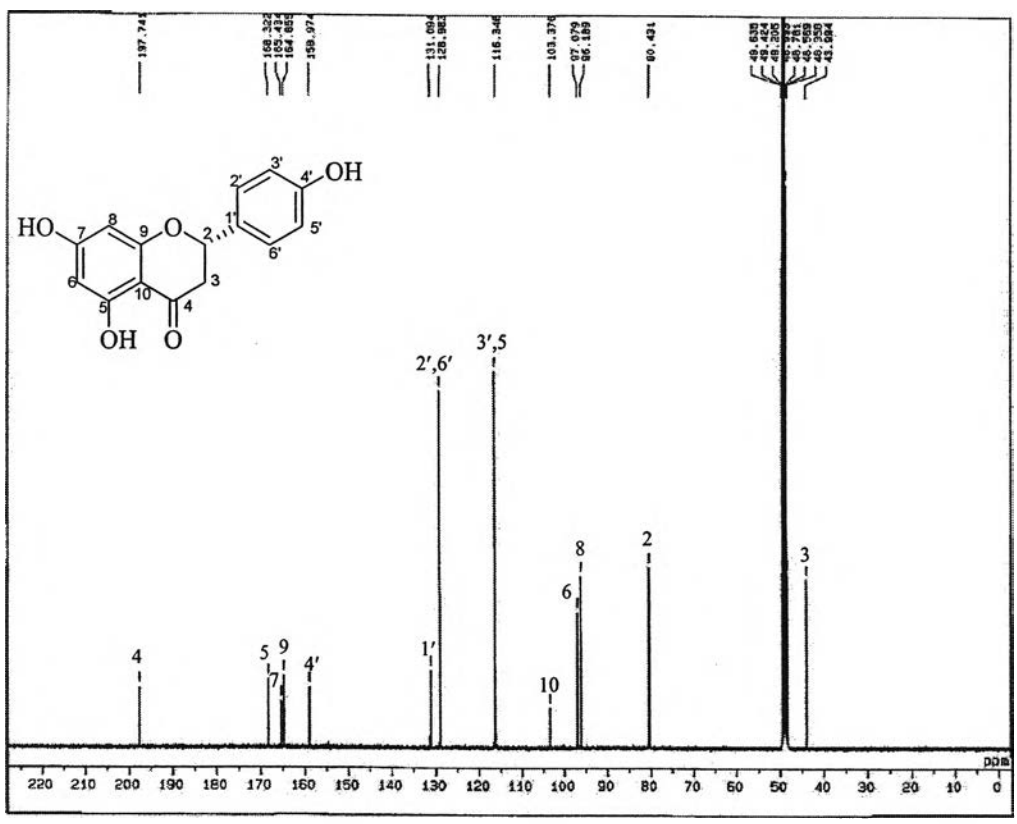

Figure 205 ^{13}C NMR (100.4 MHz) Spectrum of compound DP37 (MeOH-d_4)

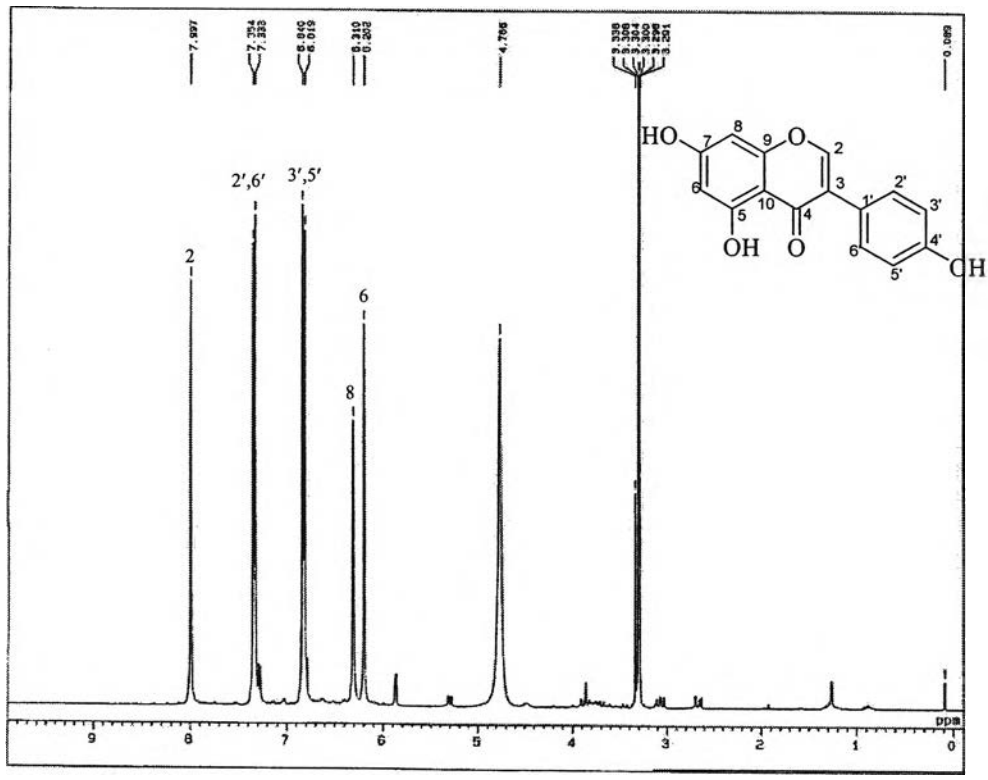

Figure 206 ^{1}H NMR (400 MHz) Spectrum of compound DP38 (MeOH-d_4)

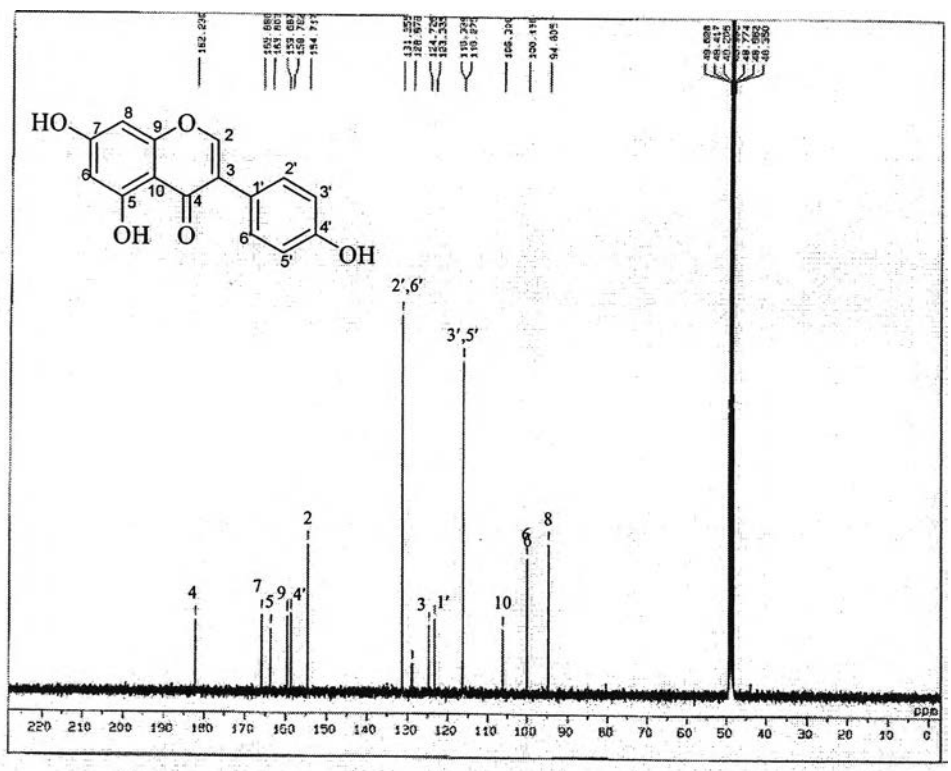

Figure 207 ^{13}C NMR (100.4 MHz) Spectrum of compound DP38 (MeOH-d_4)

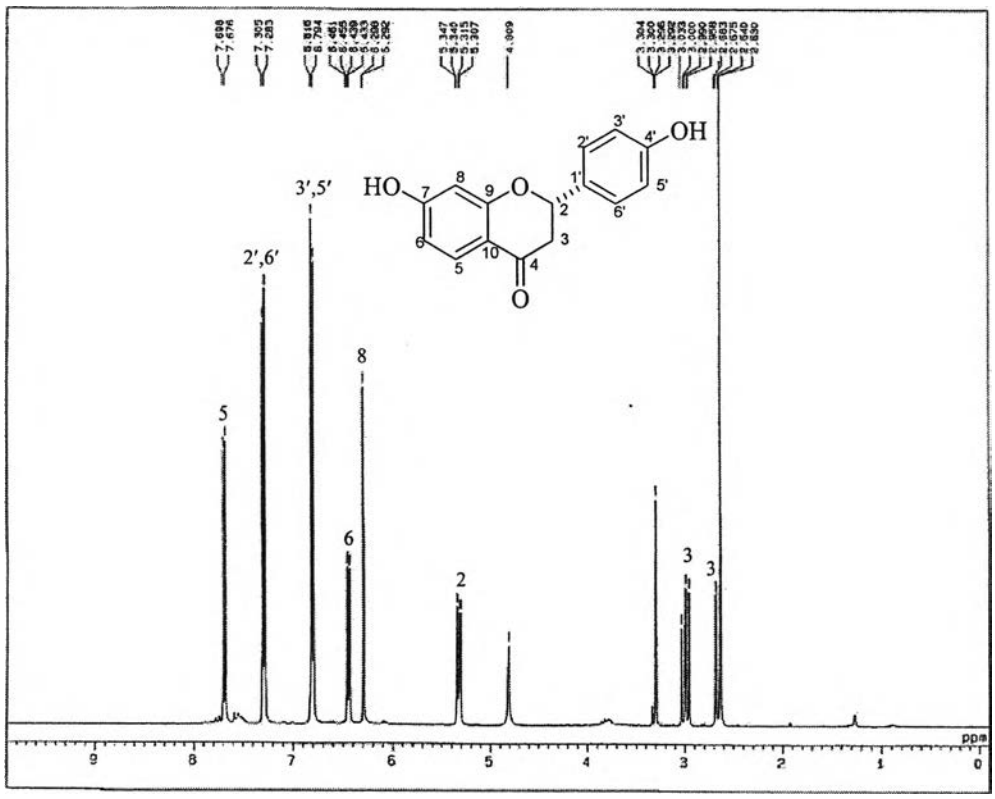

Figure 208 ^{1}H NMR (400 MHz) Spectrum of compound DP39 (acetone-d_6)

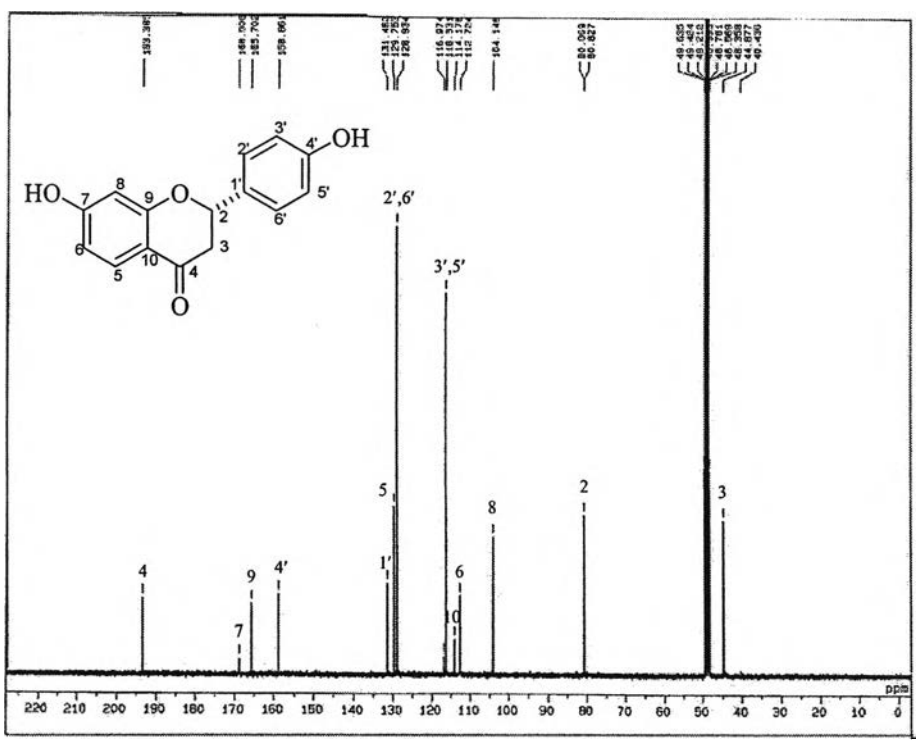

Figure 209 ^{13}C NMR (100.4 MHz) Spectrum of compound DP39 (MeOH-d_4)

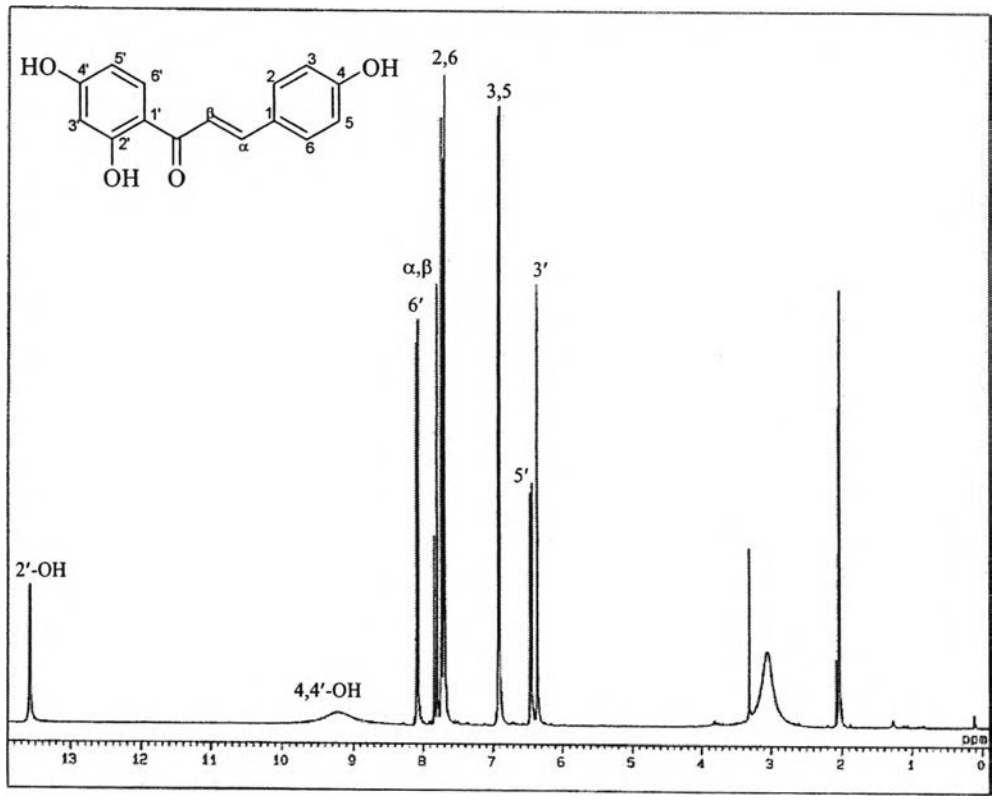

Figure 210 ^{1}H NMR (400 MHz) Spectrum of compound DP40 (acetone-d_6)

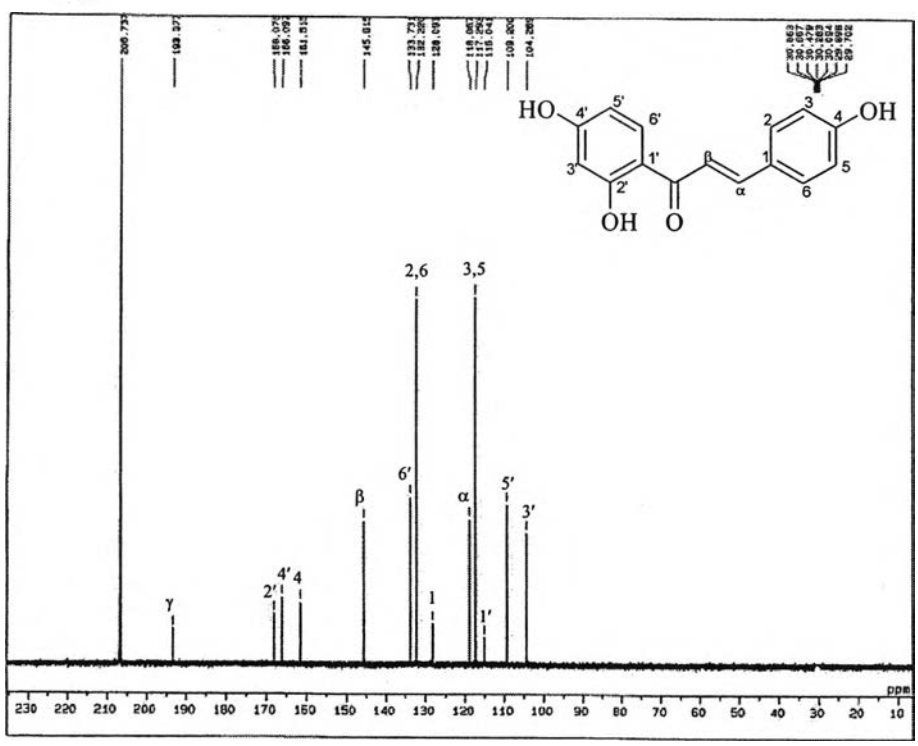

Figure 211 ^{13}C NMR (100.4 MHz) Spectrum of compound DP40 (MeOH-d_4)

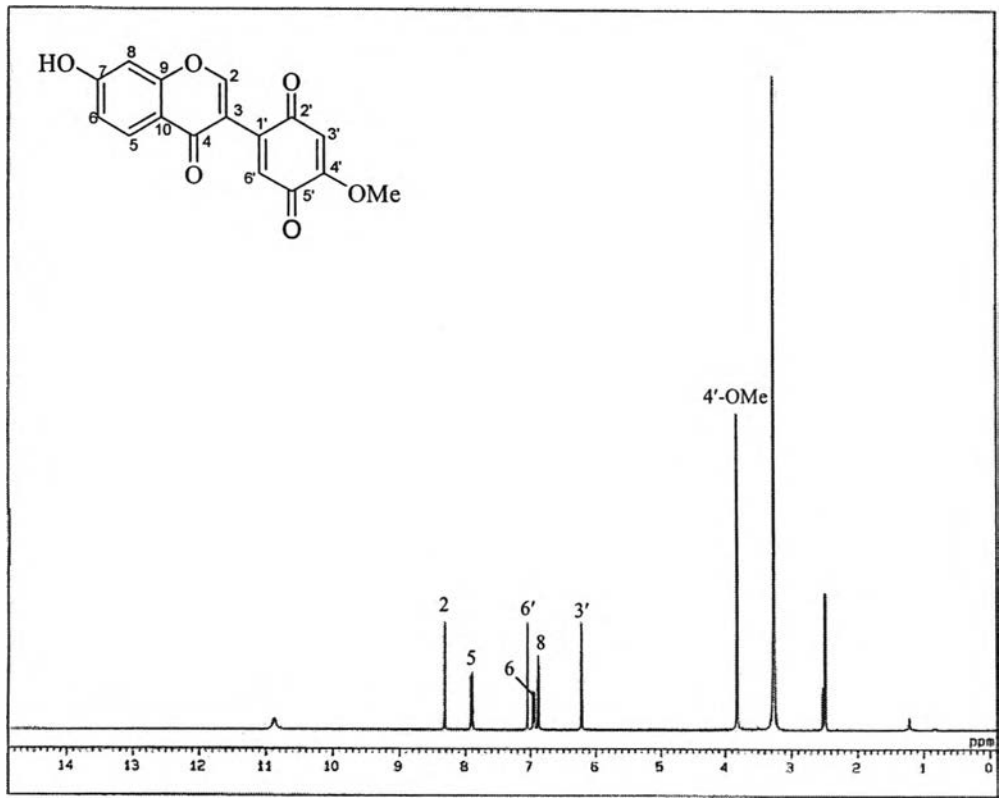

Figure 212 ^{1}H NMR (400 MHz) Spectrum of compound DP41 (DMSO-d_6)

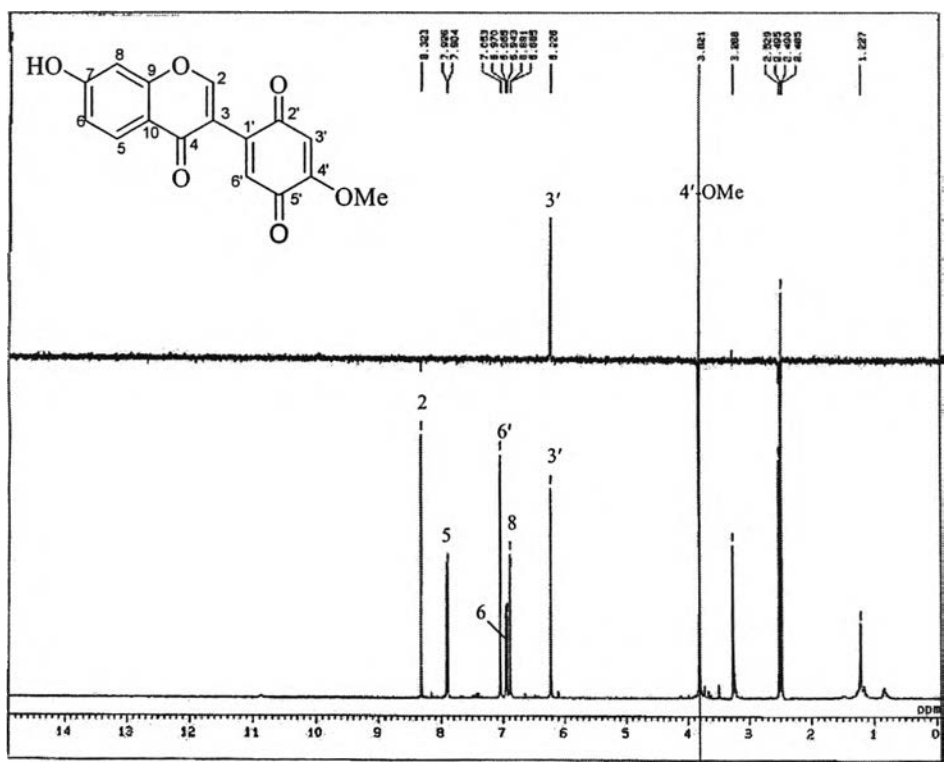

Figure 213 NOE difference Spectrum of compound DP41 (DMSO-d_6)

VITA

Miss Orawan Monthakantirat was born on September 2, 1973 in Nakhonsawan, Thailand. She received her Bachelor's degree of Science in Pharmacy in 1996 from Faculty of Pharmaceutical Sciences, Khon Kaen University and Master's degree of Science in Pharmacy (Pharm. Chem.), in 1999 from the Faculty of Pharmacy, Mahidol University. She was granted a 2002 Royal Golden Jubilee Scholarship from Thailand Fund and a 2003 research grant from Association of International Education, Japan. She is currently a member Faculty of Pharmaceutical Sciences, Khon Kaen University.

Publication.

Monthakantirat, O., De-Eaknamkul, W., Umehara, K., Yoshinaga, Y., Miyase, T., Warashina, T., and Noguchi, H. 2005. Phenolic constituents of the rhizomes of the Thai medicinal plant *Belamcanda chinensis* with proliferative activity for two breast cancer cell lines. J. Nat. Prod. 68:361-364.

Poster Presentations.

Monthakantirat, O., De-Eknamkul, W., Umahara, K., Yoshinaga, Y., Miyase, T. and Noguchi, H. Estrogenic compounds from *Belamcanda chinensis* (Iridaceae). The 124th Annual Research Meeting of The Pharmaceutical Society of Japan, August 25-27 2004, Osaka Japan.

Oral Presentation

Monthakantirat, O., De-Eaknamkul, W., Umehara, K., Matsushita, A., Terada, E., Miyase, T. and Noguchi, H. Chemical Constituents of *Dalbergia parviflora* heartwood. RGJ-Ph. D. Congress VII, April 20-22, 2006. Chomtein Beach Resort Hotel, Pattaya, Chonburi.