

REFERENCES

- Anbarasi K, Vani G, Balakrishna K, Shyamala Devi CS. Effect of bacoside A on brain antioxidant status in cigarette smoked exposed rats. **Life Sci** 2006; 78: 1378-1384.
- Anonymous. **A Short Guide: Developing Immunochromatographic Test Strips**. 2nd ed. Bedford, MA: Millipore; 1999.
- Barrett SCH, Strother JL. Taxonomy and natural history of *Bacopa* (Scrophulariaceae) in California. **Systematic botany** 1978; 3(4): 408-419.
- Bhattachary SK, Bhattachary A, Kumar A, Ghosal S. Antioxidant activity of *Bacopa monniera* in rat frontal cortex, striatum and hippocampus. **Phytother Res** 2000; 14: 174-179.
- Chakravarty KA, Sarkar T, Masuda K, Shiojima K, Nakane T, Kawahara N. Bacopaside I and II: two pseudojubilogenin glycosides from *Bacopa monniera*. **Phytochemistry** 2001; 58: 553-556.
- Chakravarty KA, Garai S, Masuda K, Nakane T, Kawahara N. Bacopasides III-V: three new triterpenoid glycosides from *Bacopa monniera*. **Chem Pharm Bull** 2003; 51(2): 215-217.
- Channa S, Dar A, Anjum S, Yaqoob M, Atta-ur-Rahman. Anti-inflammatory activity of *Bacopa monniera* in rodents. **J Ethnopharmacol** 2006; 104: 286-289.
- Channa S, Dar A, Yaqoob M, Anjum S, Sultani Z, Atta-ur-Rahman. Broncho-vasodilatory activity of fractions and pure constituents isolated from *Bacopa monniera*. **J Ethnopharmacol** 2003; 86: 27-35.
- Dar A, Channa S. Calcium antagonistic activity of *Bacopa monniera* on vascular and intestinal smooth muscles of rabbit and guinea-pig. **J Ethnopharmacol** 1999; 66: 167-174.
- Das A, Shanker G, Nath C, Pal R, Singh S, Singh HK. A comparative study in rodents of standardized extracts of *Bacopa monniera* and *Ginkgo biloba*. Anticholinesterase and cognitive enhancing activities. **Pharmacol Biochem Behav** 2002; 73: 893-900.

- Deepak M, Sangli GK, Arun PC, Amit A. Quantitative determination of the major saponin mixture bacoside A in *Bacopa monnieri* by HPLC. **Phytochem Anal** 2005; 16(1): 24-29.
- Ganapaty S, Thomas PS, Ramana KVG, Waterman PG. Dammarane and ceanothane triterpenes from *Zizyphus glabrata*. **Z Naturforsch** 2006; 61b: 87-92.
- Ganzera M, Gampenrieder J, Pawar RS, Khan IA, Stuppner H. Separation of the major triterpenoid saponins in *Bacopa monnieri* by high-performance liquid chromatography. **Anal Chim Acta** 2004; 516: 149-154.
- Garai S, Shashi BM, Ohtani K, Yamasaki K. Dammarane-type triterpenoid saponins from *Bacopa monniera*. **Phytochemistry** 1996a; 42: 815-820.
- Garai S, Shashi BM, Ohtani K, Yamasaki K. Bacopasaponin D-A pseudojujubogenin glycosides from *Bacopa monniera*. **Phytochemistry** 1996b; 43: 447-449.
- Gupta AP, Mathur S, Gupta MM, Kumar S. Effect of the method of drying on the bacopaside A content of the harvested *Bacopa monniera* shoots revealed using a high performance thin layer chromatography method. **J Med Aromat Plant Sci** 1998; 20: 1052-1055.
- Hou CC, Lin SJ, Cheng JT, Hsu FL. Bacopaside III, Bacopasaponin G, and Bacopasides A, B, and C from *Bacopa monniera*. **J Nat Prod** 2002; 65 (12): 1759-1763.
- Huang SH, Wei HC, Lee YC. One-step immunochromatographic assay for the detection of *Staphylococcus aureus*. **Food Control** 2007; 18(8): 893-897.
- Jain P, Kulshreshtha K. Bacoside A₁, a minor saponin from *Bacopa monniera*. **Phytochemistry** 1993; 33: 449-451.
- Mahato BS, Garai S, Chakraty AK. Bacopasaponin E and F: two jujubogenin glycosides from *Bacopa monniera*. **Phytochemistry** 2000; 53: 711-714.
- Morinaga O, Fujino A, Tanaka H, Shoyama Y. An on-membrane quantitative analysis system for glycyrrhizin in licorice roots and traditional Chinese medicines. **Anal Bioanal Chem** 2005a; 383(4): 668-672.

- Morinaga O, Fukuda N, Tanaka H, Shoyama Y. Chromatographic resolution of glucosidic compounds, ginsenosides on polyethersulphone membrane, and its application to the quantitative immunoassay for ginseng saponins. **Glycobiology** 2005b; 15(10): 1061-1066.
- Morinaga O, Tanaka H, Shoyama Y. Detection and quantification of ginsenoside Re in ginseng samples by a chromatographic immunostaining method using monoclonal antibody against ginsenoside Re. **J Chromatogr B** 2006a; 830: 100-104.
- Morinaga O, Zhu S, Tanaka H, Shoyama Y. Visual detection of saikosaponins by on-membrane immunoassay and estimation of traditional Chinese medicines containing *Bupleuri radix*. **Biochem Biophys Res Commun** 2006b; 346(3): 687-692.
- Pal R, Sarin JPS. Quantitative determination of bacosides by UV-spectrophotometry. **Indian J Pharm Sci** 1992; 53: 711-714.
- Phrompittayarat W, Putalun W, Tanaka H, Jetiyanon K, Wittaya-Areekul S, Ingkaninan K. Determination of pseudojujubogenin glycosides from Brahmi based on immunoassay using a monoclonal antibody against bacopaside I. **Phytochem Anal** 2007a; 18(5): 411-418.
- Phrompittayarat W, Putalun W, Tanaka H, Wittaya-areekul S, Jetiyanon K, Ingkaninan K. An enzyme-linked immunosorbant assay using polyclonal antibodies against bacopaside I. **Anal Chim Acta** 2007b; 584(1): 1-6.
- Putalun W, Fukuda N, Tanaka H, Shoyama Y. A one-step immunochromatographic assay for detecting ginsenosides Rb1 and Rg1. **Anal Bioanal Chem** 2004a; 378(5): 1338-1341.
- Putalun W, Morinaga O, Tanaka H, Shoyama Y. Development of a one-step immunochromatographic strip test for the detection of sennosides A and B. **Phytochem Anal** 2004b; 15(2): 112-116.
- Putalun W, Tanaka H, Shoyama Y. Rapid detection of glycyrrhizin by immunochromatographic assay. **Phytochem Anal** 2005; 16(5): 370-374.
- Putalun W, Tanaka H, Shoyama Y. Rapid separation of solasodine glycosides by an immunoaffinity column using anti-solamargine monoclonal antibody. **Cytotechnology**. 1999; 31(1-2): 153-158.

- Rai D, Bhatia G, Palit G, Pal R, Singh S, Singh KH. Adaptogenic effect of *Bacopa monniera* (Brahmi). **Pharmacol Biochem Behav** 2003; 75: 823-830.
- Rastogi S, Kulshrestha DK. Bacoside A₂-a triterpenoid saponin from *Bacopa monniera*. **Indian J Chem** 1999; 38B: 353-356.
- Renukappa T, Roos G, Klaiber I, Vogler B, Kraus W. Application of high-performance liquid chromatography coupled to nuclear magnetic resonance spectrometry, mass spectrometry and bioassay for the determination of active saponins from *Bacopa monniera* Wettst. **J Chromatogr A** 1999; 847: 109-116.
- Roodenrys S, Booth D, Bulzomi S, Phipps A, Micallef C, Smoker J. Chronic effects of Brahmi (*Bacopa monnieri*) on human memory. **Neuropsychopharmacol** 2002; 27(2): 279-281.
- Russo A, Borrelli F, Campisi A, Acquaviva R, Raciti G, Vanella A. Nitric oxide-related toxicity in cultured astrocytes: effect of *Bacopa monniera*. **Life Sci** 2003; 73: 1517-1526.
- Russo A, Borrelli F. *Bacopa monniera*, a reputed nootropic plant: an overview. **Phytomedicine** 2005; 12: 305-317.
- Sairam K, Dorababu M, Goel K, Bhattacharya SK. Antidepressant activities of standardized extract of *Bacopa monniera* in experimental models of depression in rats. **Phytomedicine** 2002; 9: 207-211.
- Sairam K, Rao CV, Babu MD, Goel RK. Prophylactic and curative effects of *Bacopa monniera* in gastric ulcer models. **Phytomedicine** 2001; 8: 423-430.
- Shan S, Tanaka H, Shoyama Y. Enzyme-linked immunosorbent assay for glycyrrhizin using anti-glycyrrhizin monoclonal antibody and an eastern blotting technique for glucuronides of glycyrrhetic acid. **Anal Chem** 2001; 73(24): 5784-5790.
- Shoyama Y, Tanaka H, Fukuda N. Monoclonal antibodies against naturally occurring bioactive compounds. **Cytotechnology** 1999; 31: 9-27.
- Singh HK, Dhawan BN. Neuropsychopharmacological effects of the Ayurvedic nootropic *Bacopa monnieri* Linn. (Brahmi). **Indian J Pharmacol** 1997; 29(5): s359-s365.
- Singh HK, Rastogi RP, Srimal RC, Dhawan BN. Effect of bacoside A and B on the avoidance response in rats. **Phytother Res** 1988; 2: 70-75.

- Sivaramakrishna C, Rao CV, Trimurtulu G, Vanisree M, Subbaraju GV. Triterpenoid glycosides from *Bacopa monnieri*. **Phytochemistry** 2005; 66: 2719-2728.
- Stough C, Lloyd J, Clarke J, Downey LA, Hutchison CW, Rodgers T, et al. The chronic effects of an extract of *Bacopa monniera* (Brahmi) on cognitive function in healthy human subjects. **Psychopharmacology (Berl)** 2001; 156: 481-484.
- Tanaka H, Putalun W, Tsuzaki C, Shoyama Y. A simple determination of steroidal alkaloid glycosides by thin-layer chromatography immunostaining using monoclonal antibody against solamargine. **FEBS Lett** 1997; 404: 279-282.
- Viji V, Helen A. Inhibition of lipoxygenases and cyclooxygenase-2 enzymes by extracts isolated from *Bacopa monniera* (L.) Wettst. **J Ethnopharmacol** 2008; 118: 305-311.
- Vohora D, Pal SN, Pillai KK. Protection from phenytoin-induced cognitive deficit by *Bacopa monniera*, a reputed Indian nootropic plant. **J Ethnopharmacol** 2000; 71: 383-390.
- Wang X, Li K, Shi D, Jin X, Xiong N, Peng F, et al. Development and validation of an immunochromatographic assay for rapid detection of sulfadiazine in eggs and chickens. **J Chromatogr B** 2007; 847(2): 289-295.
- Xu J, Tanaka H, Shoyama Y. One-step immunochromatographic separation and ELISA quantification of glycyrrhizin from traditional Chinese medicines. **J Chromatogr B** 2007; 850: 53-58.
- Zhu S, Shimokawa S, Shoyama Y, Tanaka H. A novel analytical ELISA-based methodology for pharmacologically active saikosaponins. **Fitoterapia** 2006; 77: 100-108.

RESEARCH PUBLICATIONS

Imsungnoen N, Phrompittayarat W, Ingkaninan K, Tanaka H, Putalun W.

Immunochromatographic assay for the detection of pseudojujubogenin glycosides. **Phytochem Anal** 2009; 20: 64-67.

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membrane quantitative analysis system for pseudojujubogenin glycosides. **The Eighth NRCT-JSPS Joint Seminar: Innovative Research in Natural Products for Sustainable Development**. Proceeding of the 8th NRCT-JSPS Joint Seminar: Innovative Research in Natural Products for Sustainable Development; 2008 Dec 3-4; faculty of pharmaceutical sciences, Chulalongkorn University, Bangkok, Thailand.

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