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Standardization techniques involved in the estimation of soy isoflavones from *Glycine max* L. Merill.

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Soy isoflavones from *Glycine max* L.Merill, a type of phytoestrogen are considered as potential cancer chemopreventive compounds especially prostate and breast cancer and has potential ability to reduce the symptoms associated to menopause. They are also used to combat osteoporosis and hyperlipidemia. The major isoflavones in soyabean include daidzein, genistein, glycitein and their glycosides. Thus soy isoflavones are considered as potential candidate for complementary and alternative therapy. Standardization of isoflavone content in *Glycine max* L.Merill set with the extraction procedure involved and the analytical technique developed. For extraction of isoflavones several extraction methods have been used ranging from solvent extraction by soxhlet, magnetic stirring to more modern sample preparation techniques like supercritical fluid extraction, pressurized liquid extraction, solid phase extraction and ultrasound assisted microwave extraction. Different analytical techniques like UV spectrophotometric, HPLC, capillary electrophoresis, LC-ESI-MS, have been developed to separate and quantify soy isoflavones in all forms, whereas selection of a particular technique depends in the objectives of investigation. A simple and practical approach is needed for routine quality check and quality consistency assurance in between batches. Chromatographic fingerprints as a strategy for standardization of herbal medicine is widely accepted. A novel HPTLC method has been developed and validated for the estimation of individual isoflavone content in different varieties of Glycine max L.Merill.

Biography

E. Sanmuga Priya completed her doctorate in Pharmacology at University of madras in 2006 and M.Pharm in Pharmaceutical chemistry from Banaras Hindu University. She is a recipient of Gold medal for securing highest percentage of marks in B.Pharm. She has also received SIRI Research award for her research contribution by Indian Association of Biomedical Scientists, 2001. Presently she is serving as Assistant professor, Department of Pharmaceutical Technology, Anna University BIT campus, Tiruchirappalli. Her focused area of research includes identification and development of novel lead molecules for the treatment of rheumatoid arthritis, diabetes and standardization of herbal medicine. She has published her research in various peer reviewed international journals with a cumulative impact factor of 13. She has authored a book chapter entitled "Development of novel lead molecules from plant sources" in the book series "*Recent developments in Biotechnology*".