

VALIDASI METODE KCKT UNTUK PENENTUAN GENISTEIN DALAM
PRODUK SUSU KEDELAI

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ABSTRAK

Over 80 varieties of mostly agriculturally important legumes were surveyed as sources of the genistein metabolites. Genistein is a phytoestrogen (estrogen-like chemical compound present in plants) that binds to estrogen receptors and has both weak estrogenic and weak anti-estrogenic effects. Genistein has been found in soy milk. In vitro studies with high concentrations of genistein demonstrate inhibition of cell proliferation, while in vivo studies demonstrate that genistein inhibits chemically induced mammary cancer rats. Genistein was determined using LiChrospher RP 18 column chromatography with a gradient elution of acetonitrile and 10 % acetic acid. The whole process was monitored using high performance liquid chromatograph (HPLC), equipped with photodiode array detector. The HPLC chromatogram with UV at 260 nm showed that the purity of genistein in soy milk sample was greater than 99% to the standard. In the determination of linearity, were obtained a good linear relationship. The recoveries were in the range 90,67 – 111,76%. Concentration of genistein in soymilk were $5,14 \times 10^{-4}$ %. The validated method can be utilized as a suitable method for the quality control of genistein in soy milk product.

Keywords : Method Validation, HPLC, Genistein, Soy milk, Phytoestrogens.