Method Article

Simple, efficient and economical methods for isolation and estimation of novel isoflavone using RP-HPLC

Afroz Alam,*, Kamlesh Kumar Naik, Navneet Kumar Upadhaya, Shailendra Kumar, K.L. Dhar

Abstract

The study was undertaken to develop a simplified procedure for the isolation of bioactive isoflavone from Iris kashmiriana, using a direct method of isolation, avoiding the use of chromatographic techniques. The compound was isolated by commercially viable procedure. The extraction of powdered drug (500 g) was done with petroleum ether (60–80) using a Soxhlet apparatus (24 h run). The petroleum ether extract (gums and resins 2.13 g) was obtained and the marc (400 g) was subjected to extraction with 95% methanol using a Soxhlet apparatus (24 h run). The methanolic extract (5 g) was subjected to successive fractionation with toluene, chloroform and ethyl acetate and n-butanol. On the basis of phytochemical analysis, the glycoside was present in n-butanol fraction. The n-butanol fraction (1.5 g) was taken in dried methanol, passed through activated animal charcoal and subjected to acid hydrolysis. The isoflavone (250 mg), was obtained after the usual process of separation. The purity of the compound was checked by analyzing TLC (Thin Layer chromatography) and melting

* Corresponding author. 
E-mail address: afrozepharma@gmail.com (A. Alam).

http://dx.doi.org/10.1016/j.mex.2017.02.001
2215-0161/© 2017 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).