

Penetapan kadar triprolidina hidroklorida dan pseudoefedrina hidroklorida dalam sediaan sirup obat influenza secara kromatografi lapis tipis densitometri

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20335063&lokasi=lokal>

Abstrak

The determination of pseudoephedrine hydrochloride and triprolidine hydrochloride in influenza syrup medicine has been performed using TLC densitometric method. Pseudoephedrine hydrochloride and triprolidine hydrochloride were extracted using chloroform at pH 12 from the syrup, and separated using HPTLC silica Kieselguhr glass plates 60 F 254, 20x10 cm² as stationary phase, and a mixture of methanol, ammonia and chloroform (40:2:30) as mobile phase. The plates were analyzed using Camag TLC Scanner 3 with UV-detector at 257 nm for pseudoephedrine hydrochloride and at 290 nm for triprolidine hydrochloride.

The results showed that the linearity, limit of detection, and limit of quantitation of the method for pseudoephedrine hydrochloride were 0.9999, 0.0064 µg, and 0.2124 µg respectively; while for triprolidine hydrochloride were 0.9999, 0.0076 µg, and 0.0254 µg respectively. The coefficient of variance (CV) of repeatability for the two substances were less than 2.0%; and the recovery values for pseudoephedrine hydrochloride and triprolidine hydrochloride were 99.98 ± 1.05% and 99.73 ± 1.54% respectively. The result showed that the samples analysed contained pseudoephedrine hydrochloride 94.36% of the labeled amount, and triprolidine hydrochloride 94.44% of the labeled amount.