# Determination of Sumatriptan and Zolmitriptan in Presence of Their Corresponding Degradation Products by HPTLC Methods

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**Abstract**

Accurate, sensitive, and precise high performance thin layer chromatographic (HPTLC) methods were developed and validated for the determination of sumatriptan and zolmitriptan in presence of their degradation products. Sumatriptan was separated from its degradation products and analyzed on TLC silica gel 60 F254 plates using chloroform–ethyl acetate–methanol–ammonia (4:3:3:0.1, v/v) as a developing system followed by densitometric measurement of the bands at 228 nm. Zolmitriptan was determined using chloroform–ethyl acetate–methanol–ammonia (3:3:3:1, v/v) as a developing system followed by densitometric measurement at 222 nm. The methods were validated over a range of 0.5–4 μg/spot for sumatriptan and 0.5–3 μg/spot for zolmitriptan. The proposed methods were successfully applied for the determination of the studied drugs in bulk powder and in their pharmaceutical formulations.

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