A NEW METHOD FOR THE INDIRECT SPECTROFLUORIMETRIC DETERMINATION OF PROCHLORPERAZINE MALEATE IN PHARMACEUTICAL PREPARATIONS

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A new oxidative derivatization method for the indirect spectrofluorimetric determination of Prochlorperazine maleate has been presented. Potassium hydrogenperoxomonosulphate is proposed as a derivatizing agent for Prochlorperazine, yielding the strongly fluorescent sulfoxide. This reaction product was successfully employed for the spectrofluorimetric determination of the Prochlorperazine maleate. A highly sensitive, simple and rapid method has been developed for determining prochlorperazine maleate in tablets by fluorescence of its oxidation product with Oxone solution in 0.01 M sulfuric acid solution (λ_{ex} = 340 nm; λ_{em} = 380 nm). The calibration curve is linear in its concentration range of 0.8–10.0 μg/ml. Limit of quantification (LOQ = 10S) is 0.8 μg/ml. The possibility of quantitative determination of Prochlorperazine maleate in Vertinex® tablets 5 mg has been shown, RSD <2.3% (δ <RSD) (See the table).

The results of Quantitative determination of Prochlorperazine maleate in Vertinex® tablets of 5 mg

Taken for analysis of the drug	Found Contents mg/tablet	Metrological characteristics P=0,95
0,1500 g (4.92 mg in one tablet)* Vertinex® tablets 5 mg - № 10, KUSUM EALTHCARE PVT LTD. (Alwar (Rajasthan), India.), serial number VE7003.	4.98 4.88 5.03 4.98 4.75	$\bar{X} \pm \Delta\bar{X}$=4,92±0,14 *RSD* = ±2,26 % δ* = +0 %

Notes: * The calculation is based on the average content found by the method of Ph Eur 9. Limits: not less than 95.0 and not more than 105.0% per tablet of Prochlorperazine maleate