Development and validation of HPLC method for separation and determination of active substances in pharmaceutical preparation Valetol

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Abstract

A method for the determination of paracetamol, propyphenazone and caffeine by the high-performance liquid chromatographic method with ultraviolet detection has been developed and validated. The analysis was performed at the room temperature in an isocratic mode on the reversed phase ODS Hypersil 5 μm C-18 column (250x4,6mm). A mobile phase (water : 2-propanol : diethylamine : methanol (50 + 15 + 3 + 32) adjusted to pH 7.5 by means of phosphoric acid) was suitable for the separation and the determination of paracetamol, caffeine and propyphenazone. UV detection was applied at 273 nm. Injected volume was 5 μl, flow rate 0,5 $ml.min^{-1}$.

The developed method is sensitive and selective and can be applied for the routine studies of pharmaceuticals in the tablet form.