



Research Article

**DEVELOPMENT AND VALIDATION OF A UV
SPECTROPHOTOMETRIC METHOD FOR ESTIMATION OF
VINPOCETINE IN BULK AND TABLET DOSAGE FORM**

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Received: 09 May 2013,

Revised and Accepted: 18 May 2013

ABSTRACT

Vinpocetine is a neuroprotective drug used in the treatment of various neurological disorders such as dementia, Parkinson's disease, Alzheimer's disease and other mental illnesses. The present work describes an accurate and precise UV spectrophotometric method for quantitation of Vinpocetine in bulk and tablet dosage forms. Methanol was used as an economical solvent and all spectrophotometric parameters were optimized. The wavelength of maximum absorption for Vinpocetine was found to be 274 nm. The analytical method was validated as per ICH (International Conference on Harmonization) guidelines. It obeyed Beer-Lambert's law indicated by the calibration curve in the range 5-30 µg/ml. The regression equation was $y = 0.030x + 0.004$. The Correlation Coefficient (R^2) was found to be 0.999. Limit of Detection and Limit of Quantitation were calculated as 0.38 µg/ml and 1.16 µg/ml respectively. The proposed method can be applied for the routine quality control studies for assay of Vinpocetine in bulk and tablet dosage forms.

KEYWORDS: Vinpocetine, Neuroprotective, UV spectrophotometric, Validation.