International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.12 No.03, pp 33-40, 2019

# Development and Validation of UV Spectrophotometric method for the estimation of Sofosbuvir and Ledipasvir in combined Pharmaceutical dosage forms

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**Abstract :** Two simple spectrophotometric methods have been developed for simultaneous estimation of Sofosbuvir and Ledipasvir in combined dosage forms has been developed. Method-I simultaneous equation method involves the measurement of absorbances at two wavelengths 237 nm (λmax of Sofosbuvir) and 247 nm (λ max of Ledipasvir) in diluents of water and methanol in the ratio of 8:2 (v/v).Method-II involvesderivative spectrophotometry method for simultaneous estimation of Sofosbuvir and Ledipasvir. In this method, the absorbance was measured at 237 nm for Sofosbuvir and 247 nm for Ledipasvir. Linearity was observed in range of 20-120 µg/ml and 4.5-27 µg/ml for Sofosbuvir and Ledipasvir respectively. Accuracy of method was found between 98 to 102%. The precision (intra-day, inter-day) of method was found within limits. Both method were found to be rapid, specific, precise and accurate and can be successfully applied for the routine analysis of Sofosbuvir and Ledipasvir in combined dosage form.

**Keywords :** Sofosbuvir and Ledipasvir, method development, Validation, UV spectrophotometer.

**M. Siva Kishore *et al* /International Journal of ChemTech Research, 2019,12(3): 33-40.**

**DOI= http://dx.doi.org/10.20902/IJCTR.2019.120305**

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