Simple and rapid spectrophotometric & chromatographic methods have been developed and validated for the determination of Darunavir and Ropivacain, Telmisartan (TR), Paliperidone (PP) in tablets & Zaleplon (Zpl) in capsules and as bulk drug.

For Darunavir and Ropivacain the methods applied were involving use 1,2-naphthoquinone-4-sulphonate (NQS). The former was solubilised in an alkaline medium with NQS to form an orange-colored product with λmax at 488 nm while the later gave blue colored chromogen with λmax at 565 nm. The chromogen obeyed Beer’s law in the concentration range of 5-60µg/mL. The results of the analysis have been validated statistically and by recovery studies.

For Telmisartan (TR) and Paliperidone (PP) the methods applied were involving use Ferric Chloride (FeCl₃). The method employs Ferric chloride reagent in presence of hydrochloric acid and Potassium ferricyanide to form greenish complex with λ max at 610 nm and 580 nm for Telmisartan (TR) and Paliperidone (PP) respectively. The concentration of Telmisartan (TR) and Paliperidone (PP) over a range of 10 - 60 µg/ml was found sufficient for obeying Beer’s law in the stated range. The results of the analysis have been validated statistically and by recovery studies.

For Zaleplon (Zpl) the methods are based on the reduction of ferric chloride by Zpl in neutral medium and subsequent chelation of iron (II) with 1, 10-phenanthroline (phen) (method A) or 2, 2’-bipyridyl (bipy) (method B). The resulting red colored chromogens are measured at 510 and 520 nm, for method A and method B, respectively. Under the optimum conditions, Beer’s law is obeyed in the concentration ranges of 0.25-4.0 and 2.5-50 µg ml⁻¹ with molar absorptivity values of 5.30 x 100 and 0.780 x 100 l mol⁻¹cm⁻¹ and Sandell sensitivities 0.007 and 0.051 µg cm⁻² for method A and method B, respectively. The results of the analysis have been validated statistically and by recovery studies.

**KEYWORDS:**
Darunavir, Ropivacain, Telmisartan, Paliperidone, Zaleplon, Chromogen, NQS, Ferric Chloride, 1, 10-phenanthroline, 2, 2’-bipyridyl, validation