**Research Paper**

# ANALYTICAL METHOD ANDVALIDATIONFOR THE SIMULTANEOUS DETERMINATION OF EMTRICITABINE, TENOFOVIR AND EFAVIRENZBY RP-HPLC METHOD

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A simple and new isocratic RP-HPLC method was developed and validated for the estimation of Emtricitabine, Tenofovir and Efavirenz in pharmaceutical dosage form. The chromatographic separation was performed on Waters Spherisorb column (150×4.6mm, 5µm), mobile phase used for the analysis was prepared by the combination of 65 parts of methanol and 35 parts of 0.1% orthophosphoric acid to prepare 65: 35(v/v) mixture. The run time for the separation was fixed at 10 min and the flow rate was maintained at 0.9 ml/min with the detection wave length of 260 nm. The column temperature was maintained at $25^0$C ±5and performed the HPLC analysis. The retention times found to be 1.8 min, 2.6 min and 8.2 min for Emtricitabine, Tenofovir and Efavirenz respectively. Under these optimized conditions the respective drugs were shown symmetrical peaks with low tailing factor and high peak area without interference of any excipients.

**Keywords:** Emtricitabine, Tenofovir, Efavirenz, High Performance Liquid Chromatography, Validation.

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