## 5.2. OPTIMIZED METHOD

Mobile Phase: K2HPO4: Methanol (70:30); PH-4.5

Column :THERMO HYPERSIL, C8, 250cmx4.6mm, 5µm

Flow Rate : 1.0ml/Min

Temperature : 25˚C

Volume : 10µl

Run time : 8min

Detector : 231nm



**Fig 11: Typical chromatogram of optimized method**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Retention Time | Area | USP Resolution | USP Tailing | USP Plate Count |
| 2 | 4.023 | 545523 | 6.56 | 1.32 | 12306 |
| 1 | 3.026 | 983696 |  | 1.07 | 6992 |

Observation: Two peaks eluted and all the system suitability parameters are within the limit.

**PREPARATION OF** **K2HPO4 BUFFER:**

Weigh accurately 13.609 gms K2HPO4  in to 1000ml beaker.Transfer 1000ml of HPLC water into 1000ml of beaker.

**PREPARATION OF MOBILE PHASE:**

Transfer the above solution 600ml of K2HPO4,in to 1000ml of mobile phase bottle and add400ml of Methanol is used as mobile phase. They are mixed and sonicated for 20min andadust the PH 4.5.

**PREPARATION OF THE ROSUVASTATIN** **AND FENOFIBRATE** **STANDARD AND SAMPLE SOLUTION:**

**PREPARATION OF STANDARD SOLUTION:**

Accurately weigh and transfer 10mg of Rosuvastatin and 160 mg Fenofibrate into 100ml of volumetric flask and add 10ml of water and sonicate 5min (or) shake 5min and makeup volume with water.Transfers the above solution 1ml into 10ml volumetric flask dilute to volume with water.

**PREPARATION OF SAMPLE STOCK SOLUTION:**

Commercially available 20 tablets are weighed and powdered the powdered equivalent to the 430 mg of Rosuvastatin and Fenofibrate of active ingredients were transfer into a 100ml of volumetric flask and add 10ml of Methanol and sonicate 20min (or) shake 10min and makeup with water.

Transfers above solution 1ml into 10ml of the volumetric flask dilute the volume with Methanol. And the solution was filtered through 0.45μm filter before injecting into HPLC system.