

3.4.3 Internal standard

The internal standard was chosen to be propylparaben. The retention time of propylparaben was 5.1 min in comparison to 6.2, 7.98, and 10 for amlodipine, glimepiride, and atorvastatin, respectively (Fig. 3.3). In addition the % precision of the internal standard was <2% as well as all the drugs (Table 3.6).

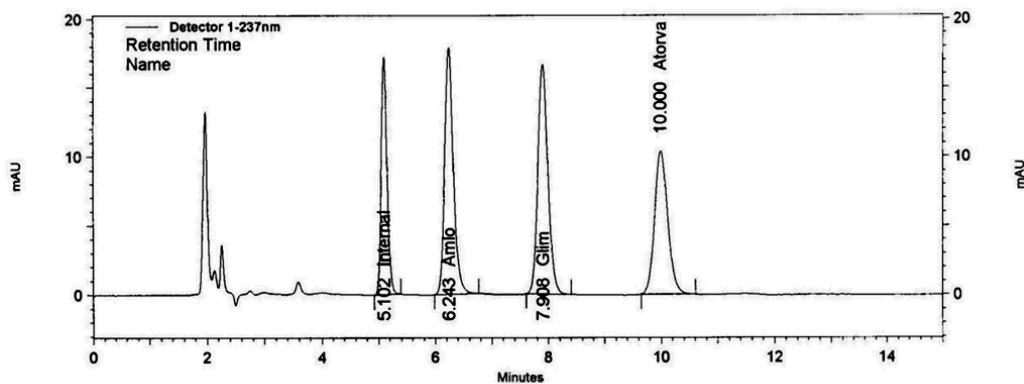


Figure 3.6. The chromatogram of a sample containing a mixture of amlodipine, glimepiride, atorvastatin, and propylparaben.

Table 3.9. Precision of the analytical method for a sample-containing one concentration of the three drugs with propylparaben. (conc. = 0.05)

| Sample# | Amlodipine | Glimepiride | Atorvastatin | Propylparaben |
|---------|------------|-------------|--------------|---------------|
| 1 | 191599 | 206056 | 166904 | 122837 |
| 2 | 189468 | 205903 | 165274 | 122707 |
| 3 | 190002 | 205594 | 165494 | 123205 |
| 4 | 191369 | 203834 | 164998 | 123291 |
| 5 | 190159 | 203496 | 164864 | 123337 |
| 6 | 191505 | 202469 | 164791 | 122528 |
| Average | 190684 | 204558 | 165387 | 122984 |
| RSD% | 0.43 | 0.73 | 0.47 | 0.28 |