3.7 Stability of drugs in analytical solution

It is important to know at which level the analyte solution are stable. This was evaluated by determining the concentrations of the analytical solutions (standard and sample) stored for 24 hours at 4°C and room temperature in comparison to freshly prepared standard solutions. Analytical concentration (1.25 mg/ml) was prepared in diluent and plasma and analyzed in duplicate. The % recovery was between 98-102% in all stored conditions in two different matrices; diluent and plasma (Table 3.19, 3.20).

Table 3.19. Stability for amlodipine, glimepiride and atorvastatin in diluent solution

Drug	Time and Temp.	Assay%	RSD
Amlodipine	Standard fresh sample	100.6	0.04
	24 hours at 4C	101.1	0.52
	24 hours at 25C	101.9	0.11
Glimepiride	Standard fresh sample	99.3	0.10
	24 hours at 4C	100.2	0.41
	24 hours at 25C	98.4	0.13
Atorvastatin	Standard fresh sample	100.4	0.05
	24 hours at 4C	100.6	0.22
	24 hours at 25C	99.3	0.32

Table 3.20. Stability for amlodipine, glimepiride and atorvastatin in plasma

Drug	Time and Temp.	Assay%	RSD
Amlodipine	Standard fresh sample	100.9	0.05
	24 hours at 4C	101.6	0.77
	24 hours at 25C	99.9	0.11
Glimepiride	Standard fresh sample	100.3	0.05
	24 hours at 4C	101.6	0.41
	24 hours at 25C	99.2	0.16
Atorvastatin	Standard fresh sample	99.2	0.40
	24 hours at 4C	98.5	0.38
	24 hours at 25C	99.0	0.06