

### 3.1.3 Stability

#### 3.1.3.1 Freeze- Thaw stability

##### *QC low (150 ng/ml)*

The highest accuracy % of mean predicted value was 104.38% at zero hour while the lowest accuracy % was 100.56% obtained at 72 hours (**Table 3.6**).

**Table 3.6** Propranolol QC low samples (150 ng/ml) results for freeze-thaw stability test (n=3).

Time (hour)	Propranolol Area	Sildenafil Area	Ratios	Measured Conc.	Mean Measured	Accuracy %	Mean accuracy %
Zero	5123	124634	0.0411	159.203	156.575	106.14	104.38
	5130	129186	0.0397	154.332		102.89	
	5071	126013	0.0402	156.189		104.13	
72.00	4325	115789	0.0374	151.208	150.841	100.81	100.56
	4110	112736	0.0365	147.964		98.64	
	4451	117306	0.0379	153.350		102.23	

##### *QC high (2500 ng/ml)*

The highest accuracy % of mean predicted values was 102.83% at 72 hours while the lowest accuracy % was 102.61% obtained at zero hour (**Table 3.7**).

**Table 3.7** Propranolol QC high samples (2500 ng/ml) results for freeze-thaw stability test (n=3).

Time (hour)	Propranolol Area	Sildenafil Area	Ratios	Measured Conc.	Mean Measured	Accuracy %	Mean accuracy %
Zero	94337	127516	0.7398	2600.243	2565.135	104.01	102.61
	93414	126369	0.7392	2598.185		103.93	
	86246	121431	0.7102	2496.976		99.88	
72.00	87258	124607	0.7003	2552.855	2570.843	102.11	102.83
	87323	121718	0.7174	2615.005		104.60	
	87858	125870	0.6980	2544.668		101.79	

\* Corresponding calibration curve used in the calculation of measured concentrations of freeze- thaw stability test is shown in **table 3.16**.