Formulation and Evaluation of Thermosensitive In situ Nasal Gel of Mirtazapine Loaded Aquasomes

Table 1. Kinetic study of MRT released from thermoreversible mucoadhesive nasal gel formulations.

Formula	Zero-order	First-order	Diffusion	Release mechanism
	R2	**R2**	**R2**	
F1	0.997015	-0.98947	**0.997342**	Diffusion
F2	0.996262	-0.98798	**0.996767**	Diffusion
F3	0.994938	-0.98676	**0.995406**	Diffusion
F4	0.985083	-0.99826	**0.998411**	Diffusion
F5	0.995376	-0.98937	**0.996445**	Diffusion
F6	0.993871	-0.99498	**0.997605**	Diffusion

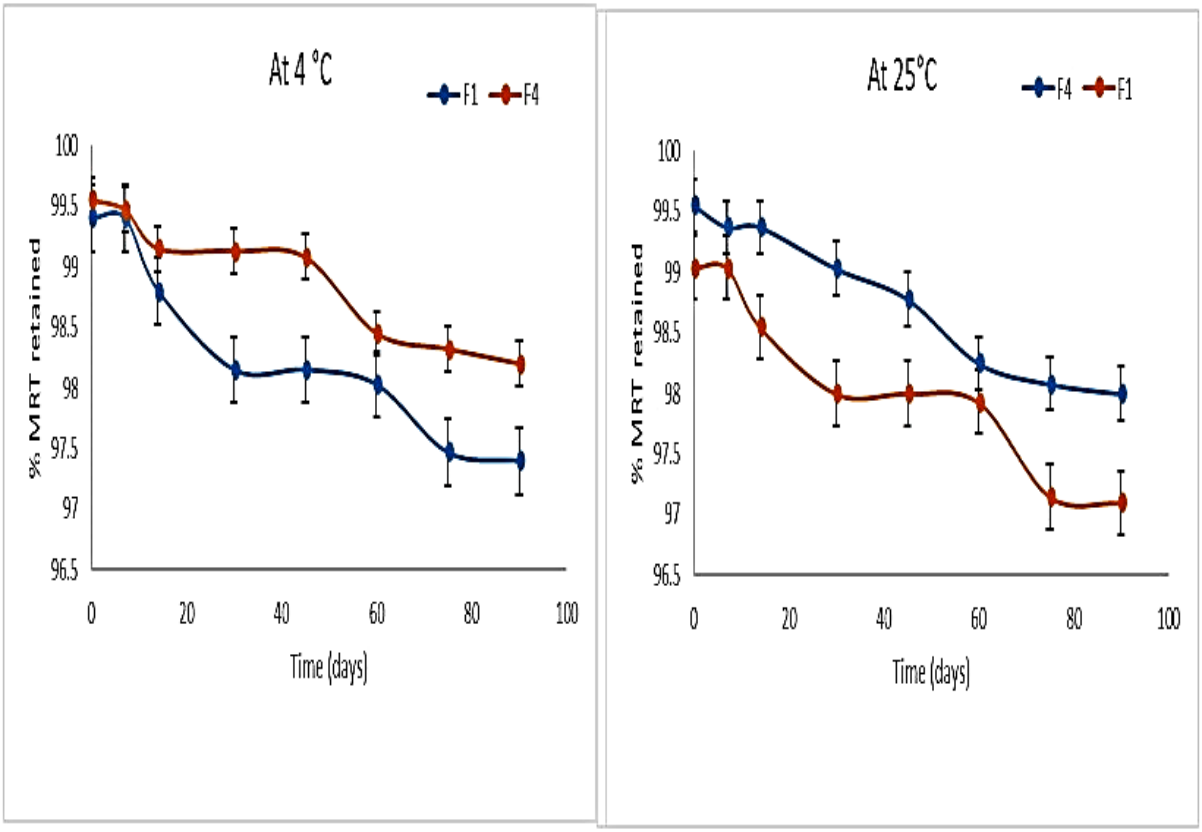

Figure 1. Percent MRT retained in thermoreversible mucoadhesive nasal gel formulations stored for three months at 4ºC and 25ºC.

Table 2. Gelation temperature and PH of the different MRT loaded aquasomes in situ nasal gel formulations before and after storage for three months at different temperatures.

Formula	Gelation temperature			PH ± SD		
	At time =0	**After storage for 3 months**		**At time = 0**	After storage for 3 month	
		4 ± 2 °C	**25 ± 2°C**		**4 ± 2 °C**	**25 ± 2°C**
F1	31.3±0.14	31,76±0.13	26.56±0.05	4.71±0.12	4.50±0.25	4.96±0.52
F4	32.5±0	31.1±0.54	27.32±0.69	5.93±0.32	6.34±0.42	5.17±0.35