Tables

Table 1

Main physicochemical characteristics of PLGA formulations prepared by the single emulsion solvent evaporation method. Data are presented as mean ± SD.

Copolymer type	Formulation	Initial GEN-AOT loading [19]	Size (nm)	PdI	Zeta potential (mV)	Residual PVA (%) (w/w)
PLGA 502H	NP 502H	0	317±5	0.09±0.03	-20.1±7.5	3.5±0.2
	NP 1	20	298±16	0.03±0.03	-3.2±0.7	3.7±0.2
	NP 2	40	284±18	0.12±0.03	-2.7±0.7	3.2±0.5
	NP 3	60	330±30	0.20±0.05	-3.5±2.7	3.9±0.1
PLGA 752H	NP 752H	0	303±22	0.15±0.08	-23.2±10.8	2.8±0.6
	NP 4	20	252±23	0.10±0.05	-3.8±1.8	3.4±0.3
	NP 5	40	281±15	0.15±0.04	-3.8±0.2	2.8±0.4
	NP 6	60	323±24	0.22±0.04	-2.4±1.4	3.0±0.5

Table 2

Gentamicin-AOT content and encapsulation efficiencies (EE) of the polymeric nanoparticles. Data are presented as mean ± SD.

Copolymer type	Formulation	Actual loading (μg GEN/mg NP)	EE (%)
PLGA 502H	NP 1	21.9±1.8	98±7
	NP 2	41.4±3.1	99±5
	NP 3	58.3±4.8	99±9
PLGA 752H	NP 4	23.25±4.4	100±10
	NP 5	41.1±5.5	99±7
	NP 6	60.3±6.4	100±3

Table 3

Minimum inhibitory (MIC) and bactericidal (MBC) concentrations of gentamicin, gentamicin-AOT and the developed gentamicin-AOT formulations against *Brucella melitensis* 16M.

Treatment	MIC (mg/L)	MBC (mg/L)
GEN sulphate	0.5	0.5
GEN-AOT	1	1
PCA GEN-AOT	1	1
empty 502H NP	>64	>64
GEN-AOT 502H NPs	0.25	0.25-0.50
empty 752H NP	>64	>64
GEN-AOT 752H NPs	0.25	0.25-0.50
free AOT	32	64