

Supplementary Information

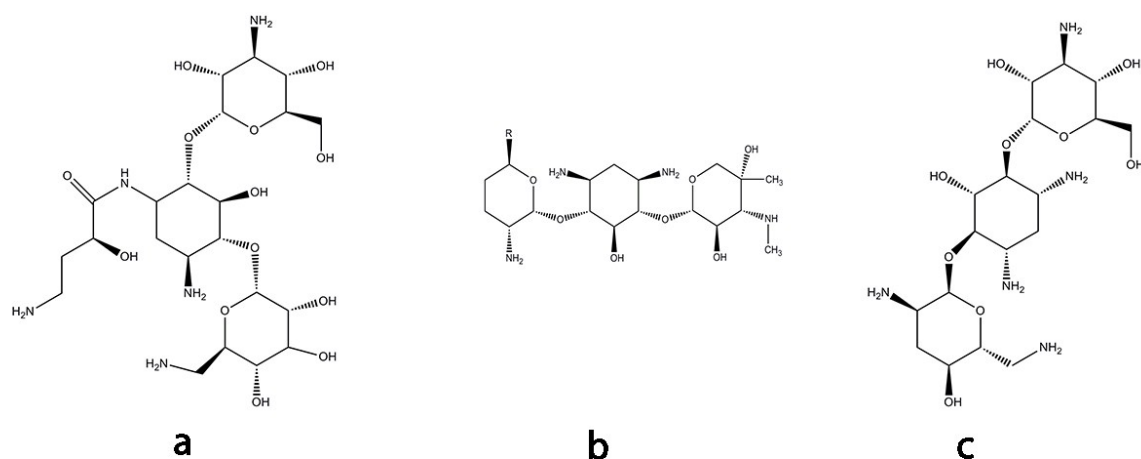


Figure S1. Molecular formula of a) amikacin b) gentamicin and c) tobramycin

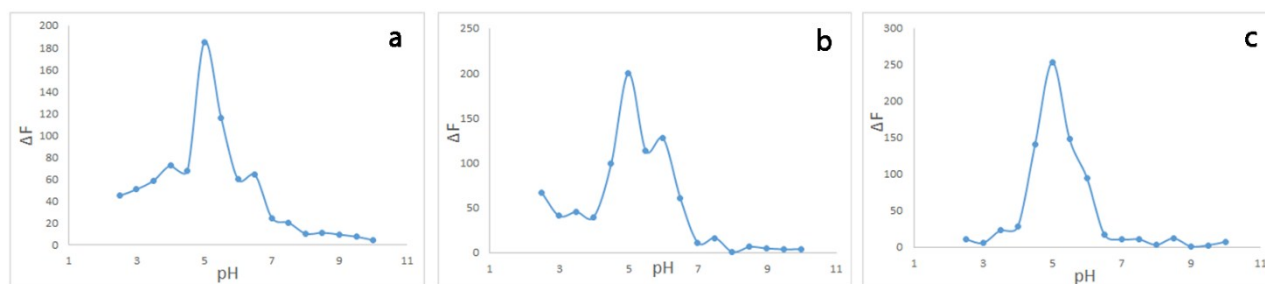


Figure S3. pH dependence of fluorescence quenching in aminoglycosides-AuNP reaction. a) amikacin b) gentamicin c) tobramycin

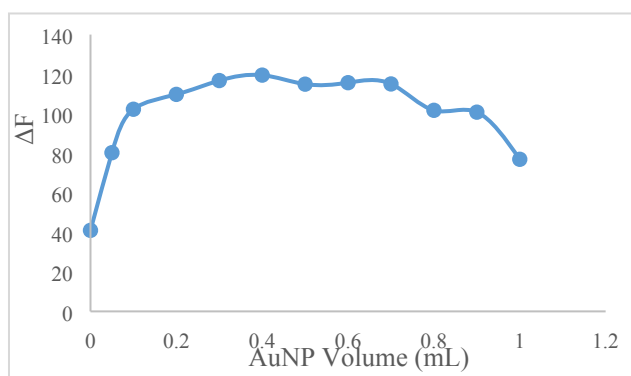


Figure S2. Optimization of AuNP concentration by fluorescence enhancement

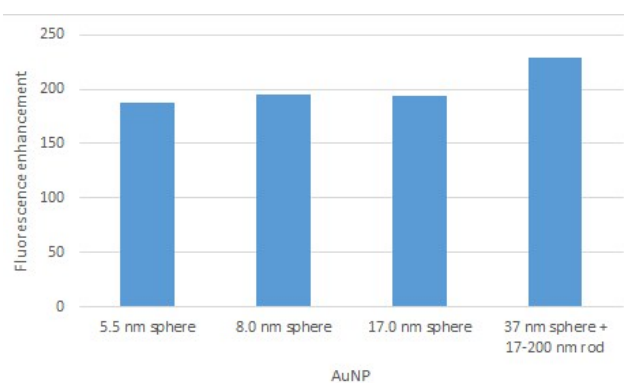


Figure S4. Comparison of different size and shape of AuNP by fluorescence enhancement.

Table S1. Standard addition results

Amikacin			Gentamicin		Tobramycin	
Added (%)	Found (%)	Recovery (%)	Found (%)	Recovery (%)	Found (%)	Recovery (%)
50	50.37	100.74	51.62	103.23	50.59	101.17
50	50.58	101.16	51.09	102.18	50.23	100.47
50	49.25	98.50	51.83	103.66	49.15	98.31
75	74.90	99.87	73.77	98.37	75.68	100.90
75	73.37	97.83	74.38	99.18	72.99	97.32
75	73.07	97.42	74.30	99.06	73.02	97.36
100	97.78	97.78	104.57	104.57	101.08	101.08
100	97.92	97.92	102.49	102.49	102.05	102.05
100	98.67	98.67	100.42	100.42	97.26	97.26
Average		98.88			101.46	99.55
Standard Deviation		1.38			2.26	1.95
Confidence Limit (p=0.05)		0.85			1.40	1.21

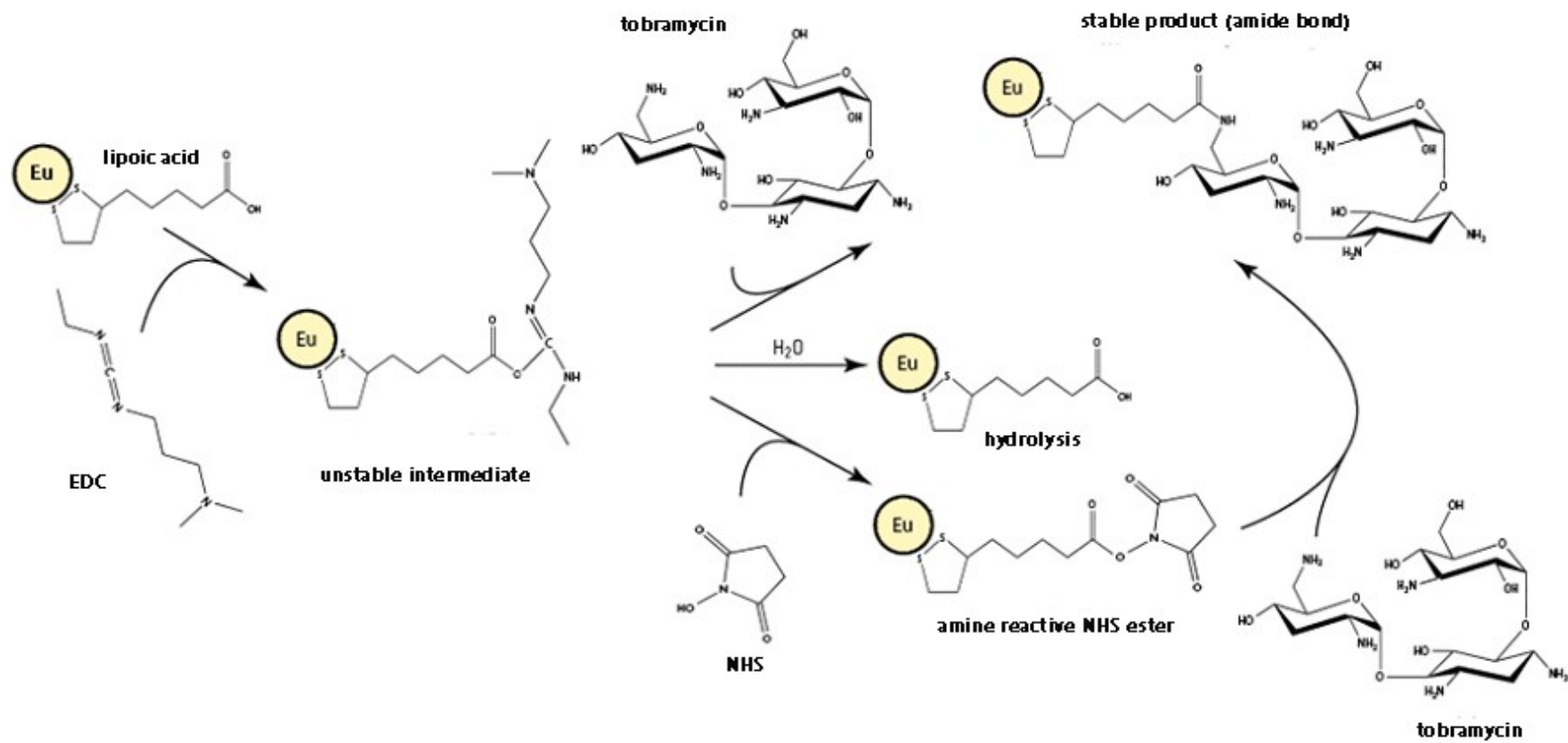


Figure S5. Schematic representation of the reaction between aminoglycosides and lipoic acid capped europium nanoparticles.