Supporting Information

Formulation and Clinical Translation of [^{177}Lu]Lu-Trastuzumab for Radioimmunotheranosis of Metastatic Breast Cancer

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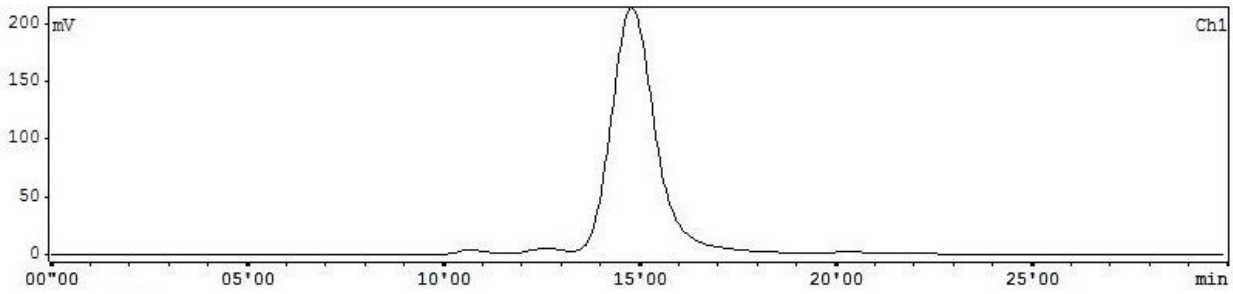
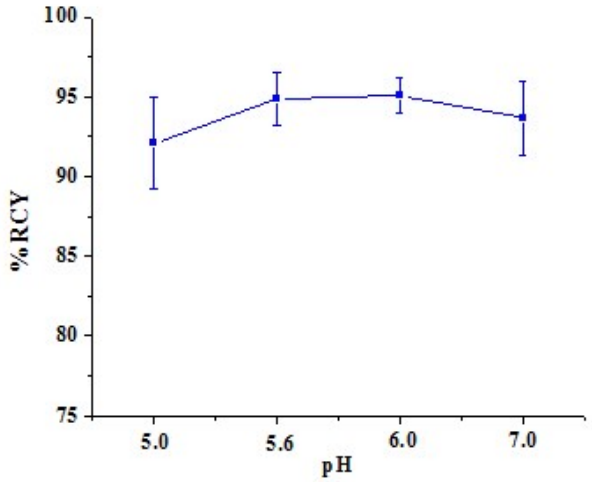
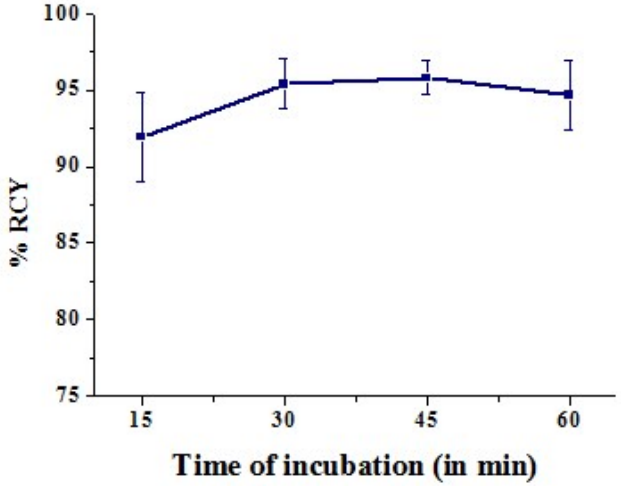


Figure S1: HPLC chromatogram depicting UV-profile of DOTA-trastuzumab conjugate



Percentage radiochemical yield (% RCY)	pH
92.10±2.90	5.0
94.86±1.65	5.6
95.05±1.11	6.0
93.66±2.28	7.0

Figure S2: Graphical representation of variation of percentage radiochemical yield with reaction pH



Percentage radiochemical yield (% RCY)	Incubation period (in min)
91.90±3.68	15
95.39±0.97	30
95.79±1.75	45
94.66±1.88	60

Figure S3: Graphical representation of variation of percentage radiochemical yield with incubation period

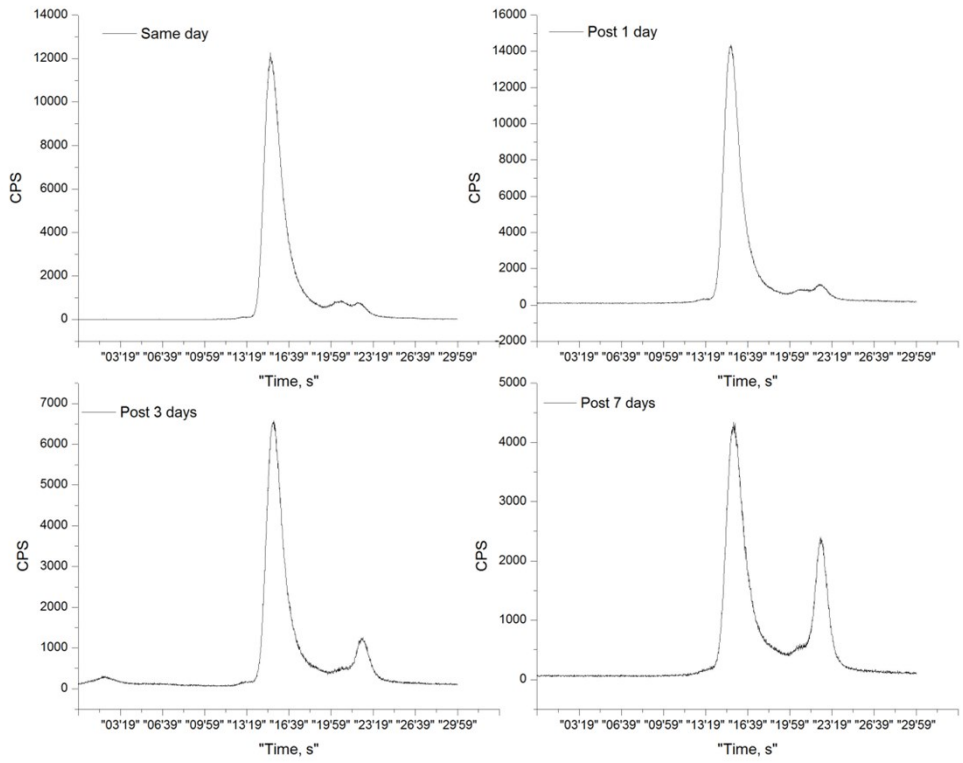


Figure S4: HPLC profiles depicting stability pattern of [^{177}Lu]Lu-trastuzumab prepared without adding any radioprotecting agent at the same day of preparation as well as different post-preparation time-points viz. 1, 3 and 7 d

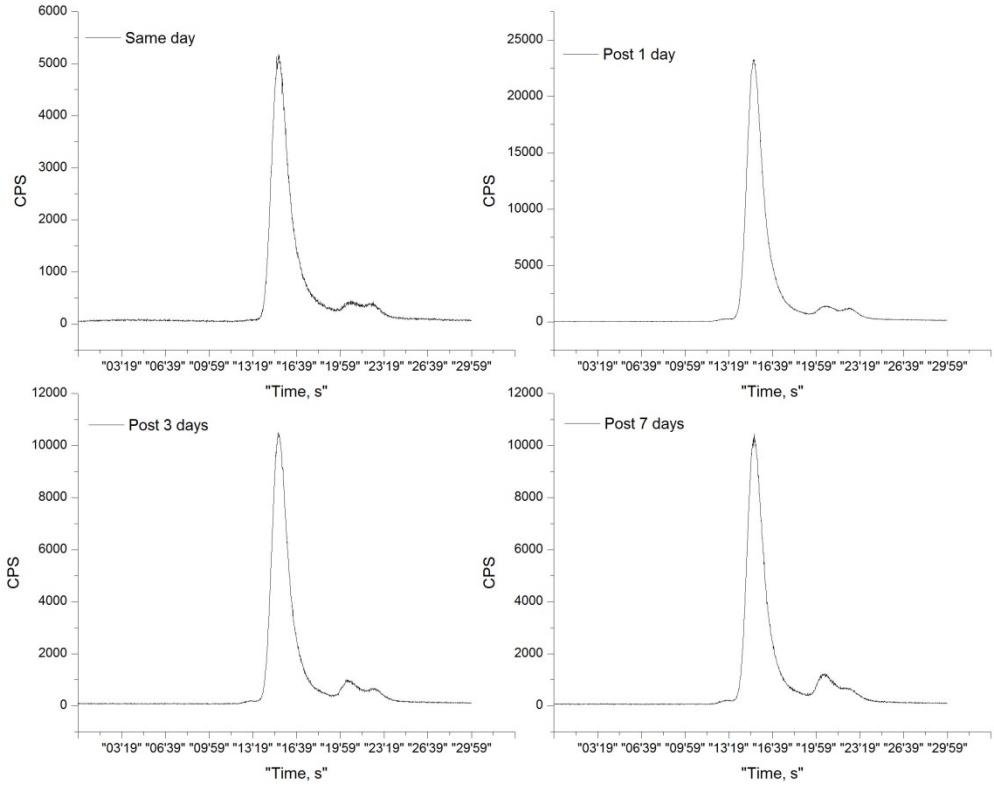


Figure S5: HPLC profiles depicting stability pattern of [^{177}Lu]Lu-trastuzumab prepared using ascorbic acid as the radioprotecting agent, obtained at the same day of preparation as well as different post-preparation time-points viz. 1, 3 and 7 d

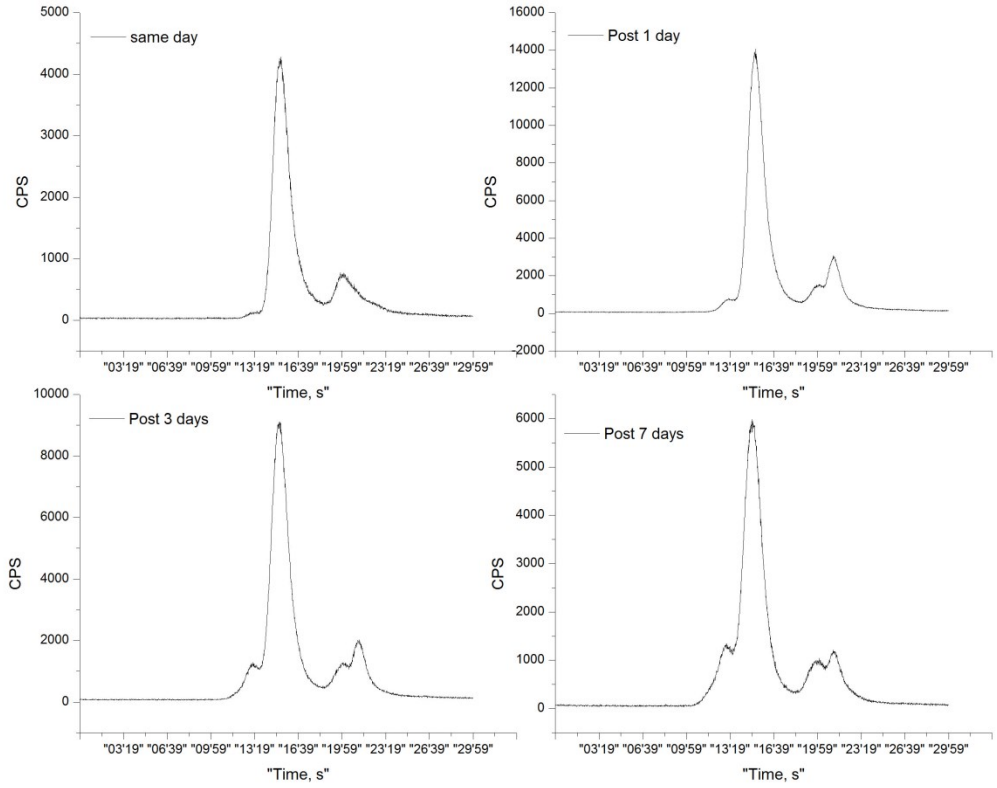


Figure S6: HPLC profiles depicting stability pattern of [^{177}Lu]Lu-trastuzumab prepared using gentisic acid as the radioprotecting agent, obtained at the same day of preparation as well as different post-preparation time points viz. 1, 3 and 7 d

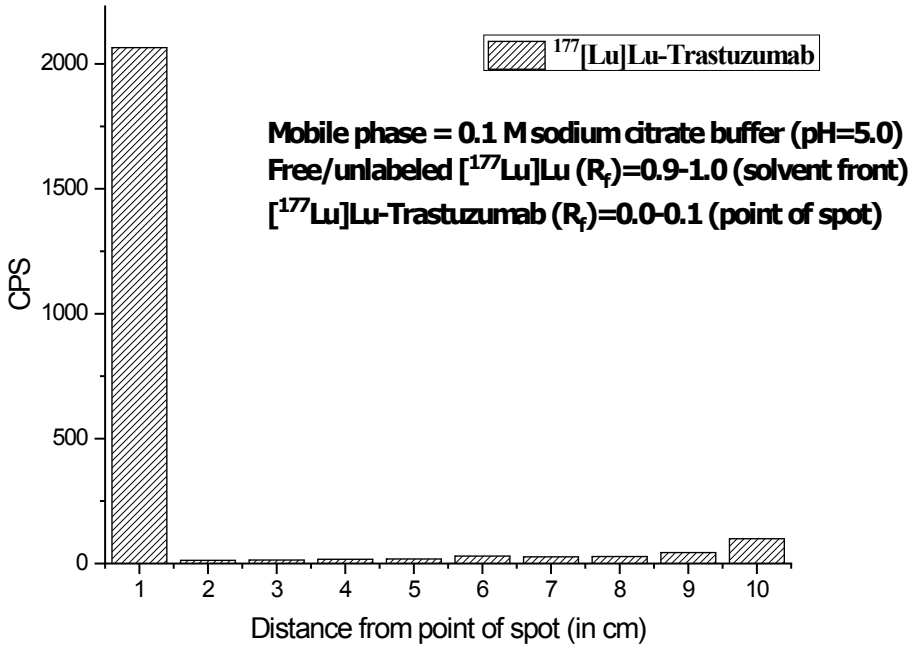
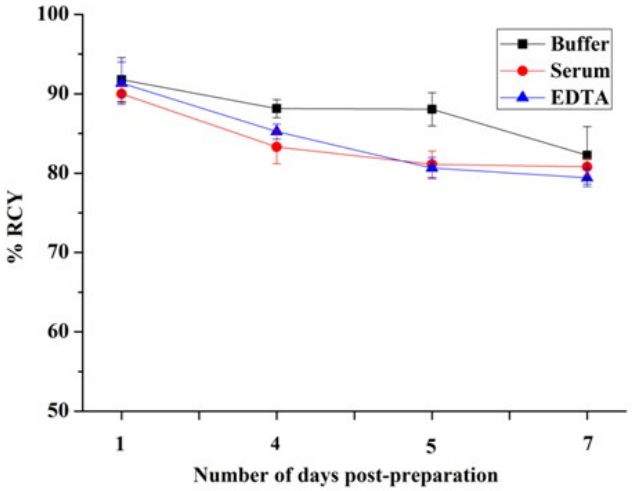


Figure S7: Paper Chromatography (PC) pattern of [^{177}Lu]Lu-trastuzumab complex



Number of days post-preparation	% RCY		
	Storage medium		
	Buffer	Serum	Buffer + EDTA (50 mol excess to Lu)
1	91.78±2.77	90.00±1.09	91.34±2.66
4	88.14±1.15	83.30±2.11	85.23±0.93
5	88.05±2.09	81.12±1.67	80.66±1.34
7	82.25±3.62	80.79±1.09	79.43±1.12

Figure S8: Graphical representation of variation in percentage radiochemical purity (%RCP) of [^{177}Lu]Lu-trastuzumab in buffer, serum and buffer containing EDTA in 50 molar excess of Lu content at 1 , 4 , 5 and 7 d post-preparation

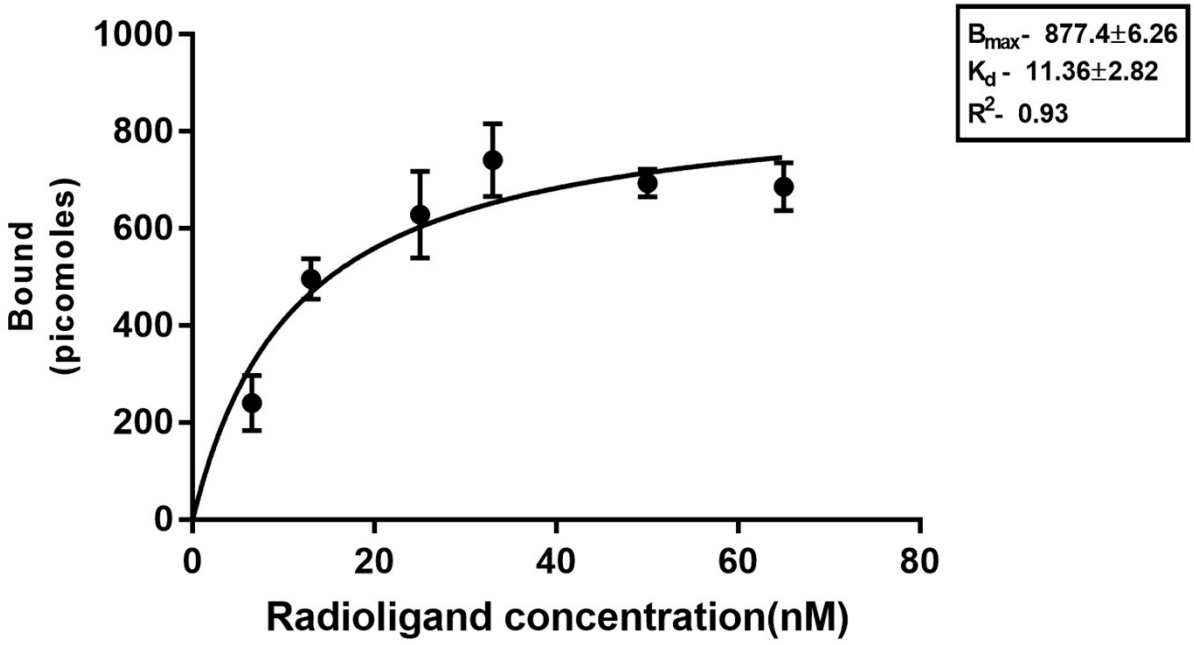


Figure S9: Graphical representation of saturation binding assay of [^{177}Lu]Lu-trastuzumab carried out using HER2 protein.