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Author	Kristofer Andersson	
Title (English)	Kit formulation for ^{99m}Tc-labelling of recombinant anti-HER2 Affibody® molecules with a cysteine engineered at the C-terminal	
Title (Swedish)		
Abstract	Affibody® molecule Z _{HER2:2395} -C has previously been shown to allow for site-specific radiolabelling. The aim of this project was to optimize a one-vial kit formulation for ^{99m} Tc labelling of Z _{HER2:2395} -C allowing it to be introduced into hospital pharmacy. Verification that the ^{99m} Tc-Z _{HER2:2395} -C conjugate was stable were performed in mouse plasma. Conformation that Z _{HER2:2395} -C kept its high specificity and affinity were performed on the HER2 overexpressing cell line, SKOV-3. The kit was evaluated over 28 days to show that no deterioration occurred. Results from this test showed that the labelling yield was 96.4 % ± 1.7 and the RHT content 0.35 ± 0.45. Cell studies showed that Z _{HER2:2395} -C kept its high affinity and specificity.	
Keywords	Affibody molecule, HER2, Technetium-99m, Tumour targeting, Imaging	
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