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Author	Lina Ekerljung	
Title (English)	Effect of Herceptin[®] and two HER2-binding affibodies on intracellular signalling pathways	
Title (Swedish)		
Abstract	<p>The aim of the present study was to investigate the effect of the two HER2-binding affibodies, (Z_{her2:4})₂ and Z₀₀₃₄₂, on intracellular signal transduction pathways and to compare to that of the monoclonal antibody trastuzumab (Herceptin[®]). The results demonstrate that the signal transduction proteins Erk1/2, Akt and PLCγ1, as well as the HER2 receptor itself, are all affected by treatment with both the two affibodies and trastuzumab. Thus, all three substances are biologically active. The results indicate that (Z_{her2:4})₂ has abilities to induce proliferation and increase resistance to apoptosis, while Z₀₀₃₄₂ showed a similar inhibitory effect on HER2 expressing cells as trastuzumab. Z₀₀₃₄₂ may thus be better suited for diagnostic and therapeutic purposes than (Z_{her2:4})₂.</p>	
Keywords	HER2, affibody, trastuzumab, signal transduction, Erk, Akt, PLC γ 1	
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