

SUPPLEMENTAL DATA

Supplement 1:

Details about references, targeted epitopes and cross-reactivity of the therapeutic mAbs and of the anti-HER antibodies used for western blotting, FACS and TR-FRET assays.

Target	Antibody	Type	Provided by	Use	Epitope	Reactivity
EGFR	#2232	Rabbit polyclonal Ab	Cell Signaling	western-blot	residues surrounding Y1068	Human, Mouse, Rabbit
	m225	Mouse IgG1	ATCC	FACS	ligand binding site	Human
	m425	Mouse IgG1	Merck, AG	TR-FRET	domain III	Human
	cetuximab	Chimeric IgG1	Merck, AG	treatment	ligand binding site	Human
p-EGFR	#2236S	Mouse Ab	Cell Signaling	western-blot	Y1068	Human
HER2	#2242	Rabbit polyclonal Ab	Cell Signaling	western-blot	residues surrounding Y1222	Human
	FSP77	Mouse IgG1	NE Hynes	FACS	extracellular domain	Human
	FRP5	Mouse IgG1	NE Hynes	TR-FRET	extracellular domain	Human
	trastuzumab	Humanized IgG1	Roche	treatment	domain IV	Human
	pertuzumab	Humanized IgG1	Roche	treatment	domain II	Human
p-HER2	#06-229	Rabbit polyclonal Ab	Upstate	western-blot	Y1248	Human, Rat

Supplemental 2:

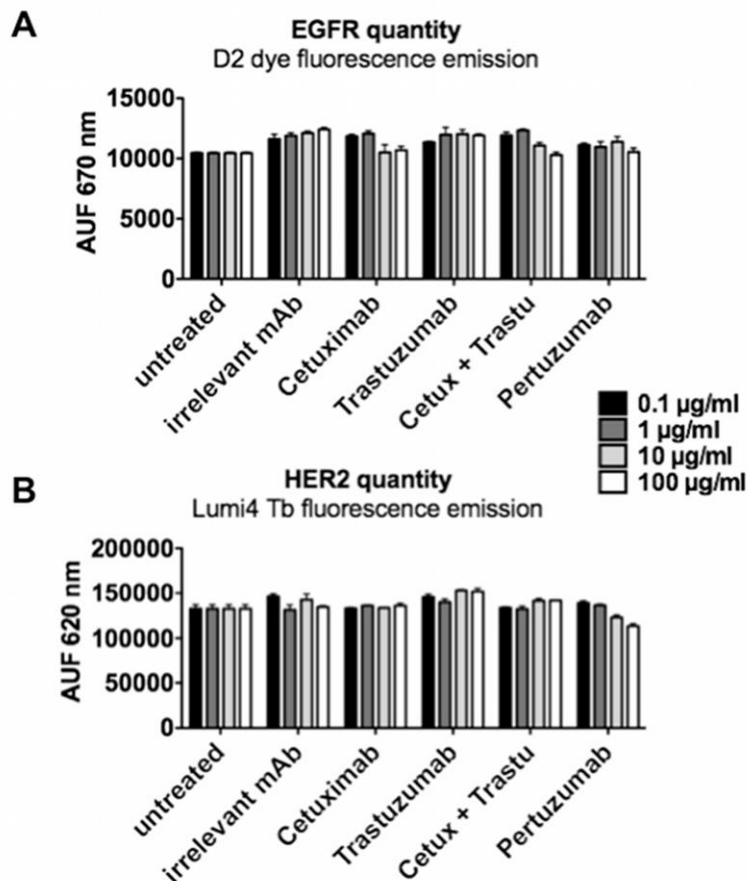


Fig. S2. Effect of therapeutic anti-EGFR or -HER2 mAbs on EGFR and HER2 expression levels in SKOV-3 cells. 10^5 cells/well were treated with increasing concentrations (from 0.1 to 100 $\mu\text{g/ml}$) of Px (irrelevant antibody), Cetuximab, Trastuzumab, Cetuximab + Trastuzumab (ratio 1:1) and Pertuzumab. Cells were then fixed with formalin for 2 min and EGFR/HER2 heterodimers were quantified using the antibody-based TR-FRET assay with anti-EGFR (d2-labeled m425) and anti-HER2 (Lumi4 Tb-labeled FRP5) antibodies. After extensive washes, different measurements were performed. A) The EGFR expression level was quantified by measurement of fluorescence emission of D2 dye coupled with an anti-EGFR (m425). B) The HER2 expression level was quantified by measurement of time resolved fluorescence emission of Lumi4 Tb coupled with an anti-HER2 (FRP5). Data are the mean \pm SEM of three independent experiments performed in triplicate.