

Product Sheet



QVQ

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Epidermal Growth Factor Receptor 2 (HER2) / Neu

Catalogue no.: Q17c
Clone name: 11A4Sc

Product: VHH directed against HER2
Target: The epidermal growth factor receptor 2 (ErbB2, HER2, Neu), UniProtKB P04626) is a single membrane spanning receptor tyrosine kinase that is activated by dimerization rather than ligand binding. HER2 is one of the 4 ErbB family members and is regarded as a proto-oncogene. It can heterodimerize with any of the other family members and dimerization results in activation and autophosphorylation of the C-terminal tyrosine residues. Overexpression of HER2 is observed in a large number of cancers and therefore serves as a target for tumor-imaging and therapy (e.g. cetuximab).¹⁻⁶

Source: Recombinant monoclonal VHH (Llama glama), purified from *S.cerevisiae* using affinity chromatography. Immunization with MCF7 cells. Phage-display selection on captured HER2 ectodomain with total elution.³

Specificity: Human ErbB2/Her2.³

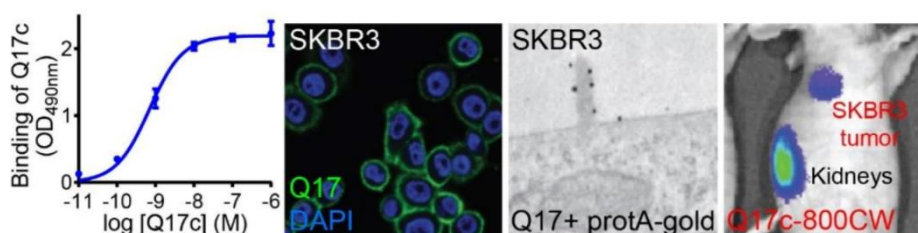
Formulation: 0.2 µm filtered solution in PBS. The products are equipped with a C-terminal C-Direct tag with an unpaired cysteine for directional conjugation.

Mol. Weight: 15 kDa
Ext. Coeff. (ε): 28545 M⁻¹ cm⁻¹
A₂₈₀ at 1g/L: 1.9

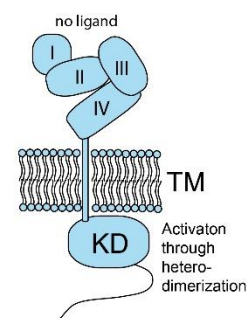
Storage: Shipped on blue ice. Store at 4 °C or -20 °C (aliquots). Addition of 0.02% sodiumazide is optional.

Applications: ELISA, IF, FACS, EM, in vivo imaging

Examples:



Binding of Q17c to human HER2 ectodomain in ELISA or endogenous HER2 on SKBR3 cells in immunofluorescence (green) or transmission electron microscopy imaging Q17c-based immuno-gold labeling. Right) In vivo imaging of SKBR3-tumors in mice using IRDye-800CW-conjugated Q17c.⁰



References:

- 1 Coussens et al., (1985) Science 230, 1132-1139
- 2 Schlessinger, J., (2000) Cell 103, 211-225
- 3 Kijanka et al., (2013) Eur J Nucl Med Mol Imaging 40, 17-18-1729
- 4 Kijanka et al., (2016) EJNMMI Res. 6, 14, doi: 10.1186/s13550-016-0166-y
- 5 Kijanka et al., (2017) J Struct Biol 199, 1-11
- 6 Brockhoff et al., (2007) Cell Prolif 40, 488-507