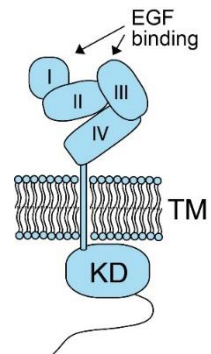


Anti-Epidermal Growth Factor Receptor (EGFR)

Catalogue no.: Q44, Q54
Clone name: Q44, Q54

Product: VHH directed against Epidermal Growth Factor Receptor (EGFR)

Target: The epidermal growth factor receptor (EGFR/ErbB1/HER1, UniProtKB [P00533](#)) is one of the members of a family of 4 receptor tyrosine kinases (ErbB1 to 4)¹. EGFR is a single membrane spanning protein of which binding of its natural ligands to the extracellular N-terminal domains I and III results in activation of the intracellular kinase domain (see figure)¹. EGFR plays an important role in cell proliferation, survival and angiogenesis and it is overexpressed on and contributes to the development of a large number of cancers². EGFR is a validated tumor marker and an important therapeutic target^{3,4,6}.



Source: Recombinant monoclonal VHH (*Llama glama*), purified from *S.cerevisiae*. Immunization with A431 cells. Phage-display selection on EGFR in immobilized membranes with competitive elution.

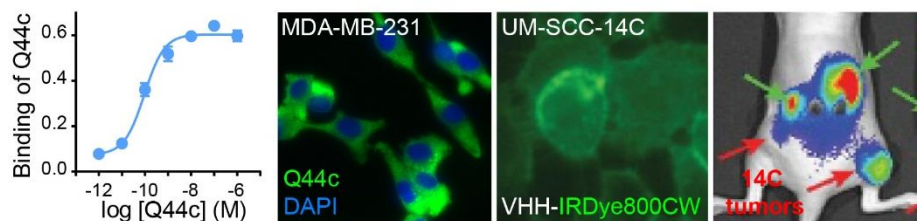
Specificity: Human EGFR.
 Epitope: Extracellular domain.
 Q44 (domain III, EGF-competing) and Q54 (domain IV) bind to non-overlapping epitopes^{4,5}.

Formulation: Frozen 0.2 µm filtered solution of VHH in PBS.

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

Applications: ELISA, IF, cyro-EM and *in vivo* imaging in animals⁶.

Examples:



Binding of Q44 to EGFR ectodomain by ELISA, EGFR on tumor cells by IF and detection of Q44c-IRDye800CW to EGFR in tumor xenografts in *in vivo* imaging⁶.

Products:

Cat. No.	Target	Tag	Label
Q44/Q54	EGFR	Tagless	No label
Q44c/Q54c	EGFR	C-direct	No label
Q44c-lab/Q54c-lab	EGFR	C-direct	Biotin / NOTA / HiLyte488 / IRDye800CW

References:

- [Roskoski R.](#), (2014) *Pharmacol Res* 79:34-74
- [Yarden Y.](#), (2001) *Eur J Cancer* 37:S3-8
- [van Driel et al.](#), (2014) *Int J Cancer* 134:2663-2673
- [Roovers et al.](#), (2007) *Cancer Immunol Immunother* 5:303-317
- [Hofman et al.](#), (2008) *J Cell Sci* 121:2519-2528
- [Oliveira et al.](#), (2012) *Mol Imaging* 11:33-46