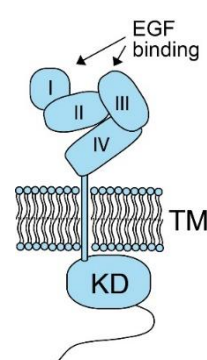
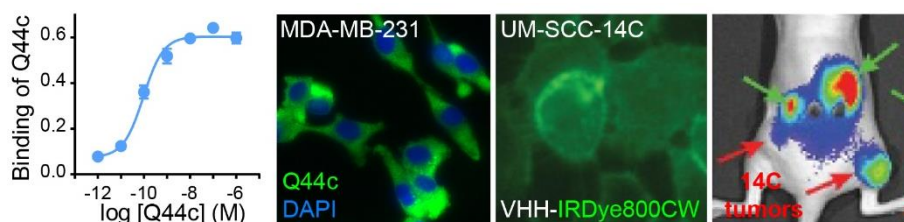


Epidermal Growth Factor Receptor (EGFR)

Catalogue no.:	Q44 and Q86
Product:	VHH directed against Epidermal Growth Factor Receptor (EGFR)
Target:	<p>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 cancers.² EGFR is a validated tumor marker and an important therapeutic target.^{3,4,6}</p> 
Source:	<p>Recombinant monoclonal VHH (<i>Llama glama</i>), purified from <i>S.cerevisiae</i> using affinity chromatography. Immunization with A431 cells. Phage-display selection on EGFR in immobilized membranes with competitive elution.^{4,5}</p>
Specificity:	<p>Human EGFR. Epitope: Extracellular domain. Q44 (domain III, EGF-competing) and Q86 (domain I, non EGF-competing) bind to non-overlapping epitopes.^{4,5}</p>
Formulation:	0.2 µm filtered solution in PBS.
Storage:	<p>Store at 4°C or -20°C (aliquots). Addition of 0.02% sodiumazide is optional.</p>
Applications:	ELISA, IF, cyro-EM and <i>in vivo</i> imaging in animals. ⁶

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* imaging.⁶

Products:

Cat. No.	Target	Tag	Label
Q44/Q86	EGFR	Tagless	No label
Q44c/Q86c	EGFR	C-direct	No label
Q44c-lab/Q86c-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