

Anti-EGFR [cet.Hum (Cetuximab - humanized; hC225)] Standard Size Ab03275-30.11

This is an scFv fragment with a His tag.

Isotype and Format: scFv fragment (His), ScFv

Clone Number: cet.Hum (Cetuximab - humanized; hC225)

Alternative Name(s) of Target: ERBB1; ERBB; ErbB-1, Erb-B1; HER1; Epidermal growth factor receptor; Proto-oncogene c-ErbB-1; Receptor tyrosine-protein kinase erbB-1

UniProt Accession Number of Target Protein: P00533

Published Application(s): WB, Block, ELISA, FC

Published Species Reactivity: Human

Immunogen: The original antibody was generated by grafting CDR loops of cetuximab on framework regions derived from type 3 (VH3 and VL3 kappa) human germline sequences to obtain recombinant VH and VL domains linked together with a flexible linker [(Gly4Ser)3] to form a scFv.

Specificity: This antibody recognizes human EGFR. The epidermal growth factor receptor is the cell-surface receptor for members of the epidermal growth factor family (EGF-family) of extracellular protein ligands.

Application Notes: The binding characterization of this humanized scFv version of cetuximab to human EGFR was done using ELISA. This antibody can recognize human EGFR from lysates of A-431 and MCF-7 cells in western blot. The scFv version was able to recognize EGFR on over-expressing cancer cells (A-431) but failed to detect cancer cells with low levels of EGFR (MCF-7 cells) in a flow cytometric experiment. The binding affinity of this scFv version was reported to be 9 fold lower than that of the parental cetuximab, but still it was strong enough for the successful recognition of human EGFR expressing cells. This antibody can be used to block cancer cell surface receptors and inhibit their downstream signaling (PMID: 29185855).

Antibody First Published in: Banisadr et al. Production of a germline-humanized cetuximab scFv and evaluation of its activity in recognizing EGFR- overexpressing cancer cells. Hum Vaccin Immunother. 2018; 14(4): 856-863. [PMID:29185855](#)

Note on publication: Describes the generation of the humanized scFv version of a therapeutic antibody cetuximab.

Product Form

Size:

50 µg Purified antibody.

Purification: Purified by Immobilized Metal Affinity Chromatography

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.