

Anti-hEGFR-hIgG1

Monoclonal human IgG1 antibody against human EGFR

Catalog code: hegfr-mab1, hegfr-mab1-1

<https://www.invivogen.com/anti-human-egfr-cetuximab>

For research use only, not for diagnostic or therapeutic use

Version 23L20-MM

PRODUCT INFORMATION

Contents: Anti-hEGFR-hIgG1 purified monoclonal antibody (mAb) is provided azide-free and lyophilized. It is available in two quantities:

hegfr-mab1: 100 µg Anti-hEGFR-hIgG1

hegfr-mab1-1: 1 mg Anti-hEGFR-hIgG1

Specificity: Epidermal growth factor receptor (EGFR)

Isotype: Human IgG1

Source: CHO cells

Formulation: 0.2 µm filtered solution in a sodium phosphate buffer with glycine, saccharose and stabilizing agents.

Antibody resuspension

Note: Ensure you see the lyophilized pellet before resuspension.

- Add 1 ml of sterile water to 100 µg to obtain a stock solution at 100 µg/ml.

- Add 1 ml of sterile water to 1 mg to obtain a stock solution at 1 mg/ml.

- Gently pipette until completely resuspended.

Storage and stability

- Product is shipped at room temperature. Upon receipt, store at -20°C.

- Reconstituted antibody is stable for 1 month when stored at 4°C and for 1 year when aliquoted and stored at -20°C. Avoid repeated freeze-thaw cycles.

Quality control

- Binding of anti-hEGFR-hIgG1 to human EGFR has been tested using flow cytometry.

- The complete sequence of this antibody has been verified.

- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION

Anti-hEGFR-hIgG1 features the constant region of the human IgG1 isotype and the variable region of cetuximab. Cetuximab is a chimeric human/mouse IgG1 monoclonal antibody that targets EGFR, a cell surface receptor overexpressed in many types of cancer. EGFR is activated by binding specific ligands, including epidermal growth factor and transforming growth factor- α . Activation of EGFR promotes cell proliferation and survival, as well as angiogenesis, leading to tumor growth and metastasis. Binding of cetuximab to EGFR blocks ligand-receptor binding and induces receptor internalization and subsequent degradation. Consequently, cetuximab blocks downstream pathways which regulate cell growth and angiogenesis. In addition, cetuximab induces cell death through antibody-dependent cell-mediated cytotoxicity (ADCC)^{1,2}. Cetuximab has been approved by the FDA for the treatment of metastatic colorectal cancer and metastatic squamous cell carcinoma of the head and neck³.

Anti-hEGFR-hIgG1 was generated by recombinant DNA technology. It has been produced in CHO cells and purified by affinity chromatography with protein G.

1. Kurai J. et al., 2007. Antibody-dependent cellular cytotoxicity mediated by cetuximab against lung cancer cell lines. Clin Cancer Res. 3(5):1552-61. 2. Kimura H. et al., 2007. Antibody-dependent cellular cytotoxicity of cetuximab against tumor cells with wild-type or mutant epidermal growth factor receptor. Cancer Sci. 98(8):1275-80. 3. Vincenzi B. et al., 2010. Cetuximab: from bench to bedside. Curr Cancer Drug Targets. 10(1):80-95.

RELATED PRODUCTS

Product	Catalog Code
Anti- β -Gal-hIgG1	bgal-mab1

Other antibody isotype families are available, such as Anti-hCD20, Anti-hPD1 and Anti- β -Gal(control). For more information, please visit www.invivogen.com/biosimilar-antibody-isotypes.

TECHNICAL SUPPORT

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