

Anti-EGFR (Matuzumab), Human IgG1 Antibody

CATALOG NO:	A1090-50 50 µg A1090-100 100 µg
ALTERNATIVE NAMES:	Epidermal Growth Factor Receptor, Proto-oncogene c-ErbB-1 Receptor tyrosine-protein kinase erbB-1
IMMUNOGEN:	Domain III of the extracellular domain of human EGFR
ISOTYPE / FORMAT:	Human IgG1, kappa
CLONALITY:	Monoclonal
SPECIES REACTIVITY:	Human
FORM:	Liquid
SOURCE:	CHO cells
FORMULATION:	Supplied in PBS, pH 7.5
STORAGE CONDITIONS:	Aliquot and store at -20 °C to -80 °C. Avoid repeated freeze-thaw cycles
DESCRIPTION:	Recombinant monoclonal antibody to EGFR. Manufactured using recombinant technology with variable regions (i.e. specificity) from the therapeutic antibody Matuzumab. This antibody binds to human EGFR at a site distinct from the antigen binding site, preventing conformational re-arrangement required for dimerization, a process essential for high-affinity ligand binding.
BACKGROUND:	Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. Activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC and STATs modules. May also activate the NF-kappa-B signaling cascade. Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin.
APPLICATION:	Block; FC; WB

REFERENCE: Murthy *et al.* Binding of an antagonistic monoclonal antibody to an intact and fragmented EGF-receptor polypeptide. Arch Biochem Biophys. 1987 Feb 1; 252 (2):549-60.

RELATED PRODUCTS:

- Anti-VEGF (Bevacizumab), humanized Antibody (**Cat. No. A1045-100**)
- Anti-HER2 (Trastuzumab), humanized Antibody (**Cat. No. A1046-100**)
- Anti-EGFR (Cetuximab), Chimeric Antibody (**Cat. No. A1047-100**)
- Anti-TNF- α (Adalimumab), humanized Antibody (**Cat. No. A1048-100**)
- Anti-CD20 (Rituximab), Chimeric Antibody (**Cat. No. A1049-100**)
- Anti-EGFR (Panitumumab), humanized antibody (**Cat. No. A1050-100**)
- Anti-OX40L (Oxelumab), Human IgG1 Antibody (**Cat. No. A1088-200**)
- Anti-CD11a (Efalizumab), Human IgG1 Antibody (**Cat. No. A1089-200**)
- Anti-CD4 (Clenoliximab), Human IgG4 Antibody (**Cat. No. A1091-200**)
- Anti-alpha 5 beta1 Integrin (Volociximab), Human IgG4 Antibody (**Cat. No. A1092-200**)
- Anti-TNF alpha (Humicade), Human IgG4 Antibody (**Cat. No. A1093-200**)
- Anti-CD40L (Ruplizumab), Human IgG1 Antibody (**Cat. No. A1094-200**)
- Anti-Human Ephrin Type A receptor 2 (1C1), Human IgG1 Antibody (**Cat. No. A1095-200**)
- Anti-Carcinoembryonic antigen (Arcitumomab), Human IgG1 Antibody (**Cat. No. A1096-200**)
- Anti-TNF alpha (Infliximab), Human IgG1 Antibody (**Cat. No. A1097-200**)
- Anti-IL-2R alpha (CD25) (Basiliximab), Human IgG1 Antibody (**Cat. No. A1098-200**)
- Anti-IL-2R alpha (Daclizumab), Human IgG1 Antibody (**Cat. No. A1099-200**)

FOR RESEARCH USE ONLY! Not to be used on humans.