ARG23240
anti-EGFR antibody [ICR10] (FITC)

Package: 50 µg
Store at: 4°C

Summary

Product Description	FITC-conjugated Rat Monoclonal antibody [ICR10] recognizes EGFR Rat anti Human EGF Receptor antibody, clone ICR10 recognizes the human epidermal growth factor receptor (EGF-R), which is over expressed in a high proportion of breast cancer cells and in a range of other carcinomas. High level expression of EGFR is often associated with advanced disease and poor prognosis. Rat anti Human EGF Receptor antibody, clone ICR10 binds to epitope B from EGFR (Lottaz et al. 2010 and Modjtahedi et al. 1993) and has an affinity of 6. 7 x 10-9 M.
Tested Reactivity	Hu, Ms
Tested Application	FACS
Host	Rat
Clonality	Monoclonal
Clone	ICR10
Isotype	IgG2a
Target Name	EGFR
Species	Human
Immunogen	Extracellular domain of Human EGF-receptor from head and neck carcinoma.
Conjugation	FITC
Alternate Names	PIG61; ERBB1; Proto-oncogene c-ErbB-1; Receptor tyrosine-protein kinase erbB-1; NISBD2; Epidermal growth factor receptor; ERBB; HER1; EC 2.7.10.1; mENA

Application Instructions

Application table

Application	Dilution
FACS	Neat

Application Note: FACS: Use 10 µl of the suggested working dilution to label 10^6 cells in 100 µl.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

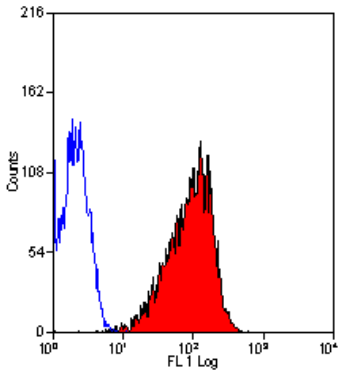
Form	Liquid
Purification	Purified by ion exchange chromatography.
Buffer	PBS, 0.09% Sodium azide and 1% BSA.
Preservative	0.09% Sodium azide
Stabilizer	1% BSA
Concentration	0.1 mg/ml
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid

	repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	EGFR
Gene Full Name	epidermal growth factor receptor
Background	EGFR is a transmembrane glycoprotein. It is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation. Mutations in this gene are associated with lung cancer. [provided by RefSeq, Jun 2016]
Function	EGFR: Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:2790960, PubMed:10805725, PubMed:27153536). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:2790960, PubMed:7679104, PubMed:8144591, PubMed:9419975, PubMed:15611079, PubMed:12297049, PubMed:27153536, PubMed:20837704). 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 (PubMed:27153536). May also activate the NF-kappa-B signaling cascade (PubMed:11116146). 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 (PubMed:11602604). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed:11483589). Plays a role in enhancing learning and memory performance. Isoform 2 may act as an antagonist of EGF action. (Microbial infection) Acts as a receptor for hepatitis C virus (HCV) in hepatocytes and facilitates its cell entry. Mediates HCV entry by promoting the formation of the CD81-CLDN1 receptor complexes that are essential for HCV entry and by enhancing membrane fusion of cells expressing HCV envelope glycoproteins. [UniProt]
Calculated Mw	134 kDa
PTM	Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated. Phosphorylation at Thr-678 and Thr-693 by PRKD1 inhibits EGF-induced MAPK8/JNK1 activation. Dephosphorylation by PTPRJ prevents endocytosis and stabilizes the receptor at the plasma membrane. Autophosphorylation at Tyr-1197 is stimulated by methylation at Arg-1199 and enhances interaction with PTPN6. Autophosphorylation at Tyr-1092 and/or Tyr-1110 recruits STAT3. Dephosphorylated by PTPN1 and PTPN2. Monoubiquitinated and polyubiquitinated upon EGF stimulation; which does not affect tyrosine kinase activity or signaling capacity but may play a role in lysosomal targeting. Polyubiquitin linkage is mainly through 'Lys-63', but linkage through 'Lys-48', 'Lys-11' and 'Lys-29' also occurs. Deubiquitination by OTUD7B prevents degradation. Ubiquitinated by RNF115 and RNF126 (By similarity). Methylated. Methylation at Arg-1199 by PRMT5 stimulates phosphorylation at Tyr-1197. [UniProt]

Images



ARG23240 anti-EGFR antibody [ICR10] (FITC) FACS image

Flow Cytometry: A431 cells stained with ARG23240 anti-EGFR antibody [ICR10] (FITC).