Mouse Anti-Human Epidermal Growth Factor Receptor Monoclonal Antibody

Cat. No. CAB11527MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse Monoclonal Antibody to Human Epidermal Growth Factor Receptor
Species	Human
Source	Mouse
Antigen Description	As a member of the epidermal growth factor receptor tyrosine kinases subfamily, EGF R is a type transmembrane glycoprotein that binds a subset of EGF family ligands including EGF, amphiregulin, TGF-α, betacellulin, etc. EGFR signaling plays a crucial role in the regulation of cell proliferation, survival and differentiation. Binding of a ligand induces EGFR homo- or hetero- dimerization, initiates subsequent tyrosine autophosphorylation and various downstream pathways (MAPK, PI3K/PKB and STAT). In addition, EGFR signaling has been shown to exert actions on carcinogenesis and disease progression, and thus EGFR was proposed as a target for cancer therapy currently.
Specificity	Human EGFR / ErbB / HER1. No cross-reactivity in ELISA with Human EGFR/ErbB1; Human ErbB2; Human ErbB3; Human ErbB4; Human cell lysate (293 cell line)
Immunogen	Recombinant Human EGFR / ErbB / HER1 Protein
Isotype	Mouse IgG2b
Clone	4E3I12D6

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Applications	WB; ELISA
Dilution	Western blot: This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human EGFR in WB. Using a DAB detection system, the detection limit for Human EGFR is approximately 1 ng/lane under non-reducing conditions. Use of this antibody under reducing conditions is not recommended.ELISA: This antibody can be used at 0.5-1 µg/mL with the appropriate secondary reagents to detect Human EGFR. The detection limit for Human EGFR is approximately 0.0195 ng/well.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human EGFR / ErbB / HER1. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70°C. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	EGFR epidermal growth factor receptor [Homo sapiens]
Official Symbol	EGFR
Synonyms	EGFR; epidermal growth factor receptor; epidermal growth factor receptor (avian erythroblastic leukemia viral (v erb b) oncogene homolog) , ERBB; ERBB1;

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	erythroblastic leukemia viral (v erb b) oncogene homolog (avian); proto-oncogene c-ErbB-1; cell growth inhibiting protein 40; cell proliferation-inducing protein 61; receptor tyrosine-protein kinase erbB-1; avian erythroblastic leukemia viral (v-erb-b) oncogene homolog; ERBB; HER1; mENA; PIG61;
Gene ID	1956
mRNA Refseq	NM_005228
Protein Refseq	NP_005219
MIM	131550
UniProt ID	P00533
Chromosome Location	7p12
Pathway	Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; Arf6 signaling events, organism-specific biosystem; Axon guidance, organism-specific biosystem; Bladder cancer, organism-specific biosystem;
Function	ATP binding; MAPK/ERK kinase kinase activity; actin filament binding; double-stranded DNA binding; enzyme binding; epidermal growth factor-activated receptor activity; epidermal growth factor-activated receptor activity; identical protein binding; contributes_to nitric-oxide synthase regulator activity; nucleotide binding; protein binding; protein heterodimerization activity; protein phosphatase binding; protein tyrosine kinase activity; protein tyrosine kinase activity; protein tyrosine kinase activity; receptor activity; receptor signaling protein tyrosine kinase activity; signal

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	transducer activity; transmembrane receptor protein tyrosine kinase activity; transmembrane receptor protein tyrosine kinase activity; transmembrane signaling receptor activity;

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