EPHA2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	EPHA2, Polyclonal Antibody
Full Product Name	EPHA2 Conjugated Antibody
Product Gene Name	anti-EPHA2 antibody
Product Synonym Names	ECK; Ephrin type-A receptor 2 precursor; Epithelial cell kinase; kinase EphA2; MPK-5
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Specificity	The antibody detects endogenous levels of total EPHA2 protein.
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	108,266 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (16450832..16482582, complement). Location: 1p36
OMIM	116600
3D Structure	ModBase 3D Structure for P29317
Immunogen	Synthesized peptide derived from internal of human EPHA2.
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-EPHA2 antibody	Most Applications
Application Notes for anti-EPHA2 antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000

Related Product Information for anti-EPHA2 antibody	Receptor tyrosine kinase which binds promiscuously membrane-bound ephrin-A family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Activated by the ligand ephrin-A1/EFNA1 regulates migration, integrin-mediated adhesion, proliferation and differentiation of cells. Regulates cell adhesion and differentiation through DSG1/desmoglein-1 and inhibition of the ERK1/ERK2 (MAPK3/MAPK1, respectively) signaling pathway. May also participate in UV radiation-induced apoptosis and have a ligand-independent stimulatory effect on chemotactic cell migration. During development, may function in distinctive aspects of pattern formation and subsequently in development of several fetal tissues. Involved for instance in angiogenesis, in early hindbrain development and epithelial proliferation and branching morphogenesis during mammary gland development. Engaged by the ligand ephrin-A5/EFNA5 may regulate lens fiber cells shape and interactions and be important for lens transparency development and maintenance. With ephrin-A2/EFNA2 may play a role in bone remodeling through regulation of osteoclastogenesis and osteoblastogenesis.
Other Notes	Small volumes of anti-EPHA2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for EPHA2 purchase	MBS9445972 is an antibody targeting EPHA2. Also known as EPHA2 Conjugated Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EPHA2. It may not necessarily be applicable to this product.

NCBI GI #	32967311
NCBI GeneID	1969
NCBI Accession #	NP_004422.2
UniProt Primary Accession #	P29317
UniProt Secondary Accession #	Q8N3Z2
UniProt Related Accession #	P29317
GenBank Nucleotide #	NM_004431.3
NCBI Official Full Name	ephrin type-A receptor 2
NCBI Official Synonym Full Names	EPH receptor A2
NCBI Official Symbol	EPHA2
NCBI Official Synonym Symbols	ECK; CTPA; ARCC2; CTPP1; CTRCT6
UniProt Protein Name	Ephrin type-A receptor 2
UniProt Synonym Protein Names	Epithelial cell kinase; Tyrosine-protein kinase receptor ECK
Protein Family	Ephrin type-A receptor
UniProt Gene Name	EPHA2
UniProt Synonym Gene Names	ECK
UniProt Entry Name	EPHA2_HUMAN
NCBI Protein Information	ephrin type-A receptor 2; soluble EPHA2 variant 1; tyrosine-protein kinase receptor ECK; epithelial cell receptor protein tyrosine kinase

NCBI Summary for EPHA2	This gene belongs to the ephrin receptor subfamily of the protein-tyrosine kinase family. EPH and EPH-related receptors have been implicated in mediating developmental events, particularly in the nervous system. Receptors in the EPH subfamily typically have a single kinase domain and an extracellular region containing a Cys-rich domain and 2 fibronectin type III repeats. The ephrin receptors are divided into 2 groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. This gene encodes a protein that binds ephrin-A ligands. Mutations in this gene are the cause of certain genetically-related cataract disorders.[provided by RefSeq, May 2010]
UniProt Comments for EPHA2	EphA2: a receptor tyrosine kinase. Receptor for members of the ephrin-A family. Binds to ephrin-A1, -A3, -A4 AND -A5. The Eph receptor tyrosine kinase family, the largest in the tyrosine kinase group, has fourteen members. They bind membrane-anchored ligands, ephrins, at sites of cell-cell contact, regulating the repulsion and adhesion of cells that underlie the establishment, maintenance, and remodeling of patterns of cellular organization. Eph signals are particularly important in regulating cell adhesion and cell migration during development, axon guidance, homeostasis and disease. EphA receptors bind to GPI-anchored ephrin-A ligands, while EphB receptors bind to ephrin-B proteins that have a transmembrane and cytoplasmic domain. Interactions between EphB receptor kinases and ephrin-B proteins transduce signals bidirectionally, signaling to both interacting cell types. Eph receptors and ephrins also regulate the adhesion of endothelial cells and are required for the remodeling of blood vessels. Overexpressed in many cancers including aggressive ovarian, cervical and breast carcinomas, and lung cancer. Expression correlates with degree of angiogenesis, metastasis and xenograft tumor growth. Soluble receptor inhibits tumor growth and angiogenesis in mice. Protein type: Kinase, protein; Membrane protein, integral; EC 2.7.10.1; Protein kinase, tyrosine (receptor); Protein kinase, TK; TK group; Eph family Chromosomal Location of Human Ortholog: 1p36 Cellular Component: cell surface; focal adhesion; integral to plasma membrane; plasma membrane Molecular Function: protein binding; ephrin receptor activity; transmembrane receptor protein tyrosine kinase activity; ATP binding Biological Process: neural tube development; axon guidance; peptidyl-tyrosine phosphorylation; viral reproduction; multicellular organismal development; notochord formation; osteoclast differentiation; bone remodeling; regulation of blood vessel endothelial cell migration; regulation of cell adhesion mediated by integrin; protein kinase B signaling cascade; ephrin receptor signaling pathway; angiogenesis; cell adhesion; vasculogenesis; skeletal development; axial mesoderm formation; cell migration; negative regulation of protein kinase B signaling cascade; mammary gland epithelial cell proliferation; regulation of angiogenesis; keratinocyte differentiation; osteoblast differentiation; DNA damage response, signal transduction resulting in induction of apoptosis; notochord cell development Disease: Cataract 6, Multiple Types
Research Articles on EPHA2	**1.** The EphA2 receptor tyrosine kinase is overexpressed in hGBM TPCs.
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