EPHB3 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	EPHB3, Monoclonal Antibody
Full Product Name	EPHB3 Mouse mAb
Product Gene Name	anti-EPHB3 antibody
Product Synonym Names	ETK2; HEK2; TYRO6
Clonality	Monoclonal
Isotype	IgG2a
Clone Number	4A122D1
Host	Mouse
Species Reactivity	Human
Form/Format	Ascitic fluid containing 0.03% Sodium Azide.
Purity/Purification	Ascitic Fluid
Preparation and Storage	Store at 4 degree C short term. Store at -20 degree C long term. Avoid freeze/thaw cycle.
OMIM	601839
3D Structure	ModBase 3D Structure for P54753
Immunogen	Purified recombinant fragment of EphB3 (aa39-212) expressed in E. Coli.
Cellular Localization	Cell Membrane, Cell Projection, Membrane
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-EPHB3 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-EPHB3 antibody	WB: 1:500-1:2000 IHC: 1:200-1:1000 ELISA: 1:10000
Related Product Information for anti-EPHB3 antibody	EphB3: EPH receptor B3. Ephrin receptors and their ligands, the ephrins, mediate numerous developmental processes, particularly in the nervous system. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. The Eph family of 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. Ephrin receptors make up the largest subgroup of the receptor tyrosine kinase (RTK) family. The protein encoded by this gene is a receptor for ephrin-B family members.
Other Notes	Small volumes of anti-EPHB3 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 EPHB3 purchase	MBS8538411 is an antibody targeting EPHB3. Also known as EPHB3 Mouse mAb. Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EPHB3. It may not necessarily be applicable to this product.

NCBI GI #	76803655
NCBI GeneID	2049
NCBI Accession #	P54753.2
UniProt Primary Accession #	P54753
UniProt Related Accession #	P54753
NCBI Official Full Name	Ephrin type-B receptor 3
NCBI Official Synonym Full Names	EPH receptor B3
NCBI Official Symbol	EPHB3
NCBI Official Synonym Symbols	EK2; ETK2; HEK2; TYRO6
UniProt Protein Name	Ephrin type-B receptor 3
UniProt Synonym Protein Names	EPH-like tyrosine kinase 2; EPH-like kinase 2; Embryonic kinase 2; EK2; hEK2; Tyrosine-protein kinase TYRO6
Protein Family	Ephrin type-B receptor
UniProt Gene Name	EPHB3
UniProt Synonym Gene Names	ETK2; HEK2; TYRO6; EPH-like kinase 2; EK2; hEK2
UniProt Entry Name	EPHB3_HUMAN
NCBI Protein Information	ephrin type-B receptor 3
NCBI Summary for EPHB3	Ephrin receptors and their ligands, the ephrins, mediate numerous developmental processes, particularly in the nervous system. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. The Eph family of receptors are divided into two groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. Ephrin receptors make up the largest subgroup of the receptor tyrosine kinase (RTK) family. This gene encodes a receptor for ephrin-B family members. [provided by RefSeq, Mar 2010]
UniProt Comments for EPHB3	EphB3: a ubiquitous receptor tyrosine kinase of the Eph family. A receptor for ephrin-B family members: ephrin-B1 and -B2. 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.EphB3 contains 1 sterile alpha motif (SAM) domain and 2 fibronectin type III domains. Protein type: EC 2.7.10.1; Protein kinase, TK; Kinase, protein; Membrane protein, integral; Protein kinase, tyrosine (receptor); TK group; Eph family Chromosomal Location of Human Ortholog: 3q27.1 Cellular Component: integral to plasma membrane; dendrite; plasma membrane; extracellular region; cytosol Molecular Function: ephrin receptor activity; axon guidance receptor activity; ATP binding Biological Process: axon guidance; cell migration; peptidyl-tyrosine phosphorylation; thymus development; protein amino acid autophosphorylation; axonal fasciculation; central nervous system projection neuron axonogenesis; digestive tract morphogenesis; palate development; regulation of axonogenesis; corpus callosum development; positive regulation of synaptogenesis; regulation of cell-cell adhesion; ephrin receptor signaling pathway; angiogenesis; urogenital system development; retinal ganglion cell axon guidance
Research Articles on EPHB3	**1.** Data suggest that receptor-tyrosine kinase HEK2 (EphB3) and phosphatidylinositol 3-kinase catalytic alpha polypeptide (PIK3CA) are cooperating oncogenes that contribute toward its pathogenesis.

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