EFNA5 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	EFNA5, Monoclonal Antibody
Full Product Name	EFNA5 (ephrin-A5, AF1, EFL5, EPLG7, GLC1M, LERK7, RAGS) (APC)
Product Gene Name	anti-EFNA5 antibody
Product Synonym Names	ephrin-A5; AF1; EFL5; EPLG7; GLC1M; LERK7; RAGS
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	1A2
Host	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC).
Purity/Purification	Purified
Specificity	Recognizes EFNA5.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: APC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	48.1kDa (422aa) 40-57kDa (SDS-PAGE under reducing conditions)
OMIM	601535
3D Structure	ModBase 3D Structure for P52803
Immunogen	EFNA5 (NP_001953, 114aa-203aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	FSEKFQLFTPFSLGFEFRPGREYFYISSAIPDNGRRSCLKLKVFVRPTNSCMKTIGVHDRVFDVNDKVENSLEPADDTVHESAEPSRGEN
Conjugate	APC
Product Categories/Family for anti-EFNA5 antibody	Antibodies; Receptors; Tyrosine Kinase
Applications Tested/Suitable for anti-EFNA5 antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-EFNA5 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-EFNA5 antibody	Ephrin-A5, a member of the ephrin gene family, prevents axon bundling in cocultures of cortical neurons with astrocytes, a model of late stage nervous system development and differentiation. The EPH and EPH-related receptors comprise the largest subfamily of receptor protein-tyrosine kinases and have been implicated in mediating developmental events, particularly in the nervous system. EPH receptors typically have a single kinase domain and an extracellular region containing a Cys-rich domain and 2 fibronectin type III repeats. The ephrin ligands and receptors have been named by the Eph Nomenclature Committee (1997). 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 similarly divided into 2 groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. [provided by RefSeq]

Other Notes	Small volumes of anti-EFNA5 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 EFNA5 purchase	MBS6169480 is an antibody targeting EFNA5. Also known as EFNA5 (ephrin-A5, AF1, EFL5, EPLG7, GLC1M, LERK7, RAGS) (APC). Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EFNA5. It may not necessarily be applicable to this product.

NCBI GI #	4503487
NCBI GeneID	1946
NCBI Accession #	NP_001953
UniProt Primary Accession #	P52803
UniProt Related Accession #	P52803
GenBank Nucleotide #	NM_001962.2
NCBI Official Full Name	ephrin-A5
NCBI Official Synonym Full Names	ephrin A5
NCBI Official Symbol	EFNA5
NCBI Official Synonym Symbols	AF1; EFL5; RAGS; EPLG7; GLC1M; LERK7
UniProt Protein Name	Ephrin-A5
UniProt Synonym Protein Names	AL-1; EPH-related receptor tyrosine kinase ligand 7
Protein Family	Ephrin
UniProt Gene Name	EFNA5
UniProt Synonym Gene Names	EPLG7; LERK7; LERK-7
UniProt Entry Name	EFNA5_HUMAN
NCBI Protein Information	ephrin-A5

UniProt Comments for EFNA5	EFNA5: Cell surface GPI-bound ligand for Eph receptors, a family of receptor tyrosine kinases which are crucial for migration, repulsion and adhesion during neuronal, vascular and epithelial development. Binds promiscuously Eph receptors 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. Induces compartmentalized signaling within a caveolae-like membrane microdomain when bound to the extracellular domain of its cognate receptor. This signaling event requires the activity of the Fyn tyrosine kinase. Activates the EPHA3 receptor to regulate cell-cell adhesion and cytoskeletal organization. With the receptor EPHA2 may regulate lens fiber cells shape and interactions and be important for lens transparency maintenance. May function actively to stimulate axon fasciculation. The interaction of EFNA5 with EPHA5 also mediates communication between pancreatic islet cells to regulate glucose-stimulated insulin secretion. Cognate/functional ligand for EPHA7, their interaction regulates brain development modulating cell-cell adhesion and repulsion. Belongs to the ephrin family. Protein type: Cell development/differentiation; Ligand, receptor tyrosine kinase; Motility/polarity/chemotaxis; Membrane protein, GPI anchor Chromosomal Location of Human Ortholog: 5q21 Cellular Component: anchored to external side of plasma membrane; extracellular region; plasma membrane; caveola Molecular Function: ephrin receptor binding; chemorepellent activity Biological Process: nervous system development; axon guidance; positive regulation of peptidyl-tyrosine phosphorylation; regulation of cell-cell adhesion; apoptosis; regulation of actin cytoskeleton organization and biogenesis; regulation of focal adhesion formation; ephrin receptor signaling pathway; negative chemotaxis; retinal ganglion cell axon guidance
Research Articles on EFNA5	**1.** These results indicate a novel mechanism of ephrin-Eph signaling independent of direct cell contact and proteolytic cleavage and suggest the participation of EphB2(+) extracellular vesicles in neural development and synapse physiology.
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