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EphB3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7624d

Product Information

Application	WB, FC, E
Primary Accession	P54753
Other Accession	NP_004434
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB16728
Calculated MW	110330

Additional Information

Gene ID	2049
Other Names	Ephrin type-B receptor 3, EPH-like tyrosine kinase 2, EPH-like kinase 2, Embryonic kinase 2, EK2, hEK2, Tyrosine-protein kinase TYRO6, EPHB3, ETK2, HEK2, TYRO6
Target/Specificity	This EphB3 antibody is generated from rabbits immunized with EphB3 his fusion protein.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EphB3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EPHB3
Synonyms	ETK2, HEK2, TYRO6
Function	Receptor tyrosine kinase which binds promiscuously transmembrane

	ephrin-B 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. Generally has an overlapping and redundant function with EPHB2. Like EPHB2, functions in axon guidance during development regulating for instance the neurons forming the corpus callosum and the anterior commissure, 2 major interhemispheric connections between the temporal lobes of the cerebral cortex. In addition to its role in axon guidance also plays an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and the formation of excitatory synapses. Controls other aspects of development through regulation of cell migration and positioning. This includes angiogenesis, palate development and thymic epithelium development for instance. Forward and reverse signaling through the EFNB2/EPHB3 complex also regulate migration and adhesion of cells that tubularize the urethra and septate the cloaca. Finally, plays an important role in intestinal epithelium differentiation segregating progenitor from differentiated cells in the crypt.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, dendrite
Tissue Location	Ubiquitous.

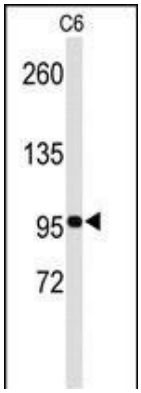
Background

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. EphB3, a member of the Tyr family of protein kinases, is a receptor for members of the ephrin-B family; it binds to both ephrin-B1 and -B2. Expression of this Type I membrane protein is ubiquitous. The protein contains putative domains for 2 fibronectin type III and 1 sterile alpha motif (SAM).

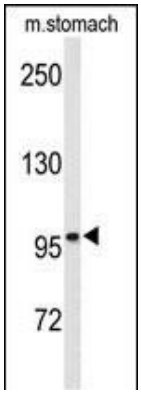
References

Chiu,S.T., et.al., Carcinogenesis 30 (9), 1475-1486 (2009)
Kang,J.U., et.al., BMC Cancer 9, 237 (2009)

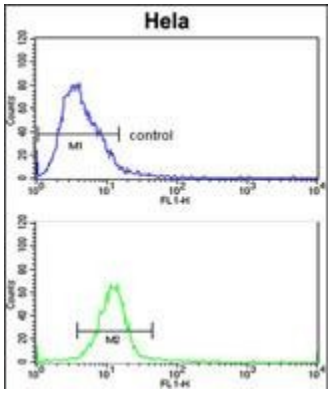
Images



Western blot analysis of EphB3 Antibody (Cat. #AP7624d) in C6 cell line lysates (35ug/lane).EphB3 (arrow) was detected using the purified Pab



Western blot analysis of EphB3 Antibody (Cat. #AP7624d) in mouse stomach tissue lysates (35ug/lane).EphB3 (arrow) was detected using the purified Pab.



EphB3 Antibody (Cat. #AP7624d) flow cytometric analysis of Hela cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.