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EphA5 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1241a

Product Information

Application	WB, E
Primary Accession	P54756
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	8B10B1; 8B10F5
Isotype	IgG1
Calculated MW	114803
Description	EphA5: EPH receptor A5. 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.
Immunogen	Purified recombinant fragment of EphA5 (aa620-774) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2044
Other Names	Ephrin type-A receptor 5, 2.7.10.1, Brain-specific kinase, EPH homology kinase 1, EHK-1, EPH-like kinase 7, EK7, hEK7, EPHA5, BSK, EHK1, HEK7, TYRO4
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EphA5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EPHA5

Synonyms	BSK, EHK1, HEK7, TYRO4
Function	Receptor tyrosine kinase which binds promiscuously GPI- anchored 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. Among GPI-anchored ephrin-A ligands, EFNA5 most probably constitutes the cognate/functional ligand for EPHA5. Functions as an axon guidance molecule during development and may be involved in the development of the retinotectal, entorhino- hippocampal and hippocamposeptal pathways. Together with EFNA5 plays also a role in synaptic plasticity in adult brain through regulation of synaptogenesis. In addition to its function in the nervous system, the interaction of EPHA5 with EFNA5 mediates communication between pancreatic islet cells to regulate glucose-stimulated insulin secretion (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:P54757}. Cell projection, dendrite
Tissue Location	Almost exclusively expressed in the nervous system in cortical neurons, cerebellar Purkinje cells and pyramidal neurons within the cortex and hippocampus. Display an increasing gradient of expression from the forebrain to hindbrain and spinal cord

References

1. Nat Rev Neurosci. 2001 Mar;2(3):155-64. 2. BMC Cancer. 2006 Jun 1;6:144.

Images

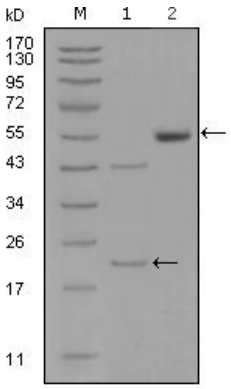


Figure 1: Western blot analysis using EPHA5 mouse mAb against truncated EPHA5-His recombinant protein (1) and truncated EPHA5(aa620-774)-hIgGFc transfected CHO-K1 cell lysate(2).

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