10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EPHA5 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM7610a

Specification

EPHA5 Antibody - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P54756
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1κ**
Calculated MW	**114803**

EPHA5 Antibody - Additional Information

Gene ID 2044

Other Names
Ephrin type-A receptor 5, Brain-specific kinase, EPH homology kinase 1, EHK-1, EPH-like kinase 7, EK7, hEK7, EPHA5, BSK, EHK1, HEK7, TYRO4

Target/Specificity
Purified His-tagged EPHA5 protein(Fragment) was used to produced this monoclonal antibody.

Dilution
WB~~1:1000
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, 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
EPHA5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

EPHA5 Antibody - 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

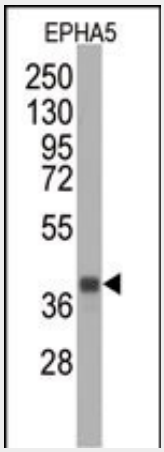
Tissue Location
Almost exclusively expressed in the nervous system in cortical neurons, cerebellar Purkinje cells and pyramidal neurons within the cortex and hippocampus. Display an increasing gradient of expression from the forebrain to hindbrain and spinal cord

EPHA5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

EPHA5 Antibody - Images



Western blot analysis of anti-EPHA5 Monoclonal Antibody (Cat.#AM7610a) by EPHA5 recombinant protein (Fragment). EPHA5 (Fragment) protein (arrow) was detected using the purified Mab.(1:2000)

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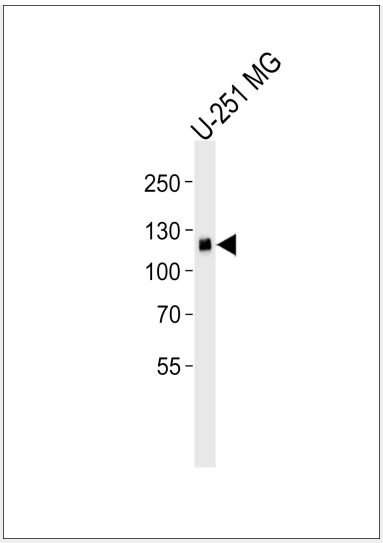

Western blot analysis of lysate from U-251 MG cell line, using EphA5 Antibody(Cat. #AM7610a). AM7610a was diluted at 1:1000. A goat anti-mouse IgG H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysate at 35µg.

Formalin-fixed and paraffin-embedded human brain tissue reacted with EPHA5 Monoclonal Antibody (Cat.#AM7610a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

EPHA5 Antibody - Background

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. Two transcript variants encoding different isoforms have been found for this gene.

EPHA5 Antibody - References

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.
Clinical significance of ephrin (eph)-A1, -A2, -a4, -a5 and -a7 receptors in pancreatic ductal adenocarcinoma. Giaginis C, et al. Pathol Oncol Res, 2010 Jun. PMID 19949912.
Frequent epigenetic inactivation of the receptor tyrosine kinase EphA5 by promoter methylation in

human breast cancer. Fu DY, et al. Hum Pathol, 2010 Jan. PMID 19733895.
Over-expression of Eph and ephrin genes in advanced ovarian cancer: ephrin gene expression correlates with shortened survival. Herath NI, et al. BMC Cancer, 2006 Jun 1. PMID 16737551.
The LIFEdb database in 2006. Mehrle A, et al. Nucleic Acids Res, 2006 Jan 1. PMID 16381901.

EPHA5 Antibody - Citations

- Differential expression of EphA5 protein in gastric carcinoma and its clinical significance.