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EphA7 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1226a

Product Information

Application	WB, IHC, E
Primary Accession	Q15375
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6C8G7
Isotype	IgG2b
Calculated MW	112097
Description	EphA7: EPH receptor A7. 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 EphA7 (aa27-210) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2045
Other Names	Ephrin type-A receptor 7, 2.7.10.1, EPH homology kinase 3, EHK-3, EPH-like kinase 11, EK11, hEK11, EPHA7, EHK3, HEK11
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 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	EphA7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EPHA7

Synonyms	EHK3, HEK11
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 is a cognate/functional ligand for EPHA7 and their interaction regulates brain development modulating cell-cell adhesion and repulsion. Has a repellent activity on axons and is for instance involved in the guidance of corticothalamic axons and in the proper topographic mapping of retinal axons to the colliculus. May also regulate brain development through a caspase(CASP3)-dependent proapoptotic activity. Forward signaling may result in activation of components of the ERK signaling pathway including MAP2K1, MAP2K2, MAPK1 and MAPK3 which are phosphorylated upon activation of EPHA7.
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Widely expressed.

References

1. Genome Res. 2004 Oct;14(10B):2121-7. 2. Nature. 2005 Oct 20;437(7062):1173-8.

Images

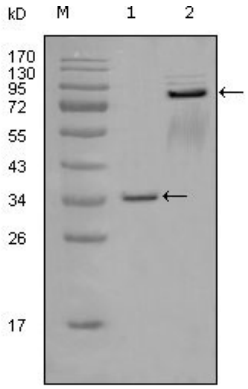

Figure 1: Western blot analysis using EphA7 mouse mAb against truncated GST-EphA7 recombinant protein (1) and truncated EphA7 (aa25-556)-hIgGFc transfected CHOK1 cell lysate (2).

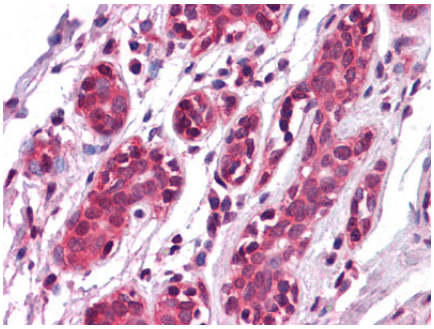

Figure 2: Immunohistochemical analysis of paraffin-embedded human Breast tissues using EPHA7 mouse mAb