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EphA1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1043a

Product Information

Application	WB, IHC, E
Primary Accession	P21709
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5D2
Isotype	IgG1
Calculated MW	108127
Description	EPH receptor A1 (EphA1), with 976-amino acid protein(about 107 kDa), belongs to the ephrin receptor subfamily of the protein-tyrosine kinase family. The Eph subfamily represents the largest group of receptor protein tyrosine kinases identified to date and their ligands, the ephrins,can be subdivided into two major subclasses, ephrin-A and ephrin-B. Interaction of Eph receptor tyrosine kinases with their membrane bound ephrin ligands initiates bidirectional signaling events that regulate cell migratory and adhesive behavior, particularly in the nervous system. They have been implicated in various developmental processes, including axonal guidance, angiogenesis, morphogenesis and carcinogenesis.
Immunogen	Purified recombinant fragment of EphA1 expressed in E. Coli.
Formulation	Purified antibody in PBS containing 0.03% sodium azide.

Additional Information

Gene ID	2041
Other Names	Ephrin type-A receptor 1, hEpha1, 2.7.10.1, EPH tyrosine kinase, EPH tyrosine kinase 1, Erythropoietin-producing hepatoma receptor, Tyrosine-protein kinase receptor EPH, EPHA1, EPH, EPHT, EPHT1
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	EphA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EPHA1
Synonyms	EPH, EPHT, EPHT1
Function	Receptor tyrosine kinase which binds promiscuously membrane- bound 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. Binds with a low affinity EFNA3 and EFNA4 and with a high affinity to EFNA1 which most probably constitutes its cognate/functional ligand. Upon activation by EFNA1 induces cell attachment to the extracellular matrix inhibiting cell spreading and motility through regulation of ILK and downstream RHOA and RAC. Also plays a role in angiogenesis and regulates cell proliferation. May play a role in apoptosis.
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Overexpressed in several carcinomas.

References

1. Shannon L. Duffy, Kirsten A. Steiner, Patrick P.L. Tam Gene Expr Patterns. 2006 Feb 6. 2. Elena B. Pasquale. Nat Rev Mol Cell Biol.2005 Jun; 6(6): 462-75.

Images

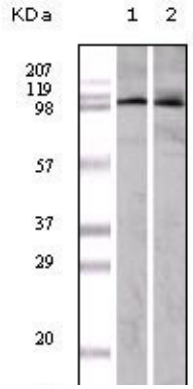

Figure 1: Western blot analysis using EphA1 mouse mAb against A549 (1) and Hela (2) cell lysate.

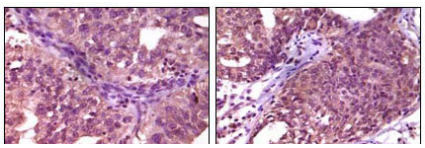

Figure 2: Immunohistochemical analysis of paraffin-embedded human ovary carcinoma (left) and breast carcinoma (right), showing cytoplasmic localization using EphA1 mouse mAb with DAB staining.