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EFNA1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50678

Product Information

Application	WB, IF
Primary Accession	P20827
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	23787

Additional Information

Gene ID	1942
Other Names	Ephrin-A1, EPH-related receptor tyrosine kinase ligand 1, LERK-1, Immediate early response protein B61, Tumor necrosis factor alpha-induced protein 4, TNF alpha-induced protein 4, Ephrin-A1, secreted form, EFNA1, EPLG1, LERK1, TNFAIP4
Dilution	WB~~1:1000 IF~~1:100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	EFNA1
Synonyms	EPLG1, LERK1, TNFAIP4
Function	Cell surface GPI-bound ligand for Eph receptors, a family of receptor tyrosine kinases which are crucial for migration, repulsion and adhesion during neuronal, vascular and epithelial development. Binds promiscuously Eph receptors residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells (PubMed:17332925, PubMed:18794797). Involved in angiogenesis, regulating vascular endothelial cell differentiation and migration through activation of EPHA2. Acts as a ligand for EPHA3, inhibiting epithelial-to-mesenchymal transition of cardiac cells and playing a role in heart development (PubMed:12794130). May also contribute to dendritic spine morphogenesis (By similarity).
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor

Tissue Location	Brain. Down-regulated in primary glioma tissues compared to the normal tissues. The soluble monomeric form is expressed in the glioblastoma multiforme (GBM) and breast cancer cells (at protein level).

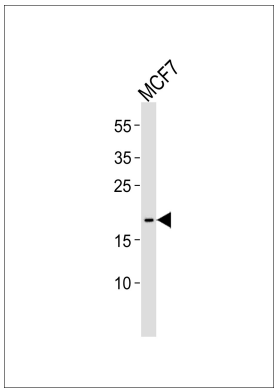
Background

Cell surface GPI-bound ligand for Eph receptors, a family of receptor tyrosine kinases which are crucial for migration, repulsion and adhesion during neuronal, vascular and epithelial development. Binds promiscuously Eph receptors residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. Plays an important role in angiogenesis and tumor neovascularization. The recruitment of VAV2, VAV3 and PI3-kinase p85 subunit by phosphorylated EPHA2 is critical for EFNA1-induced RAC1 GTPase activation and vascular endothelial cell migration and assembly. Exerts anti-oncogenic effects in tumor cells through activation and down-regulation of EPHA2. Activates EPHA2 by inducing tyrosine phosphorylation which leads to its internalization and degradation. Acts as a negative regulator in the tumorigenesis of gliomas by down-regulating EPHA2 and FAK. Can evoke collapse of embryonic neuronal growth cone and regulates dendritic spine morphogenesis.

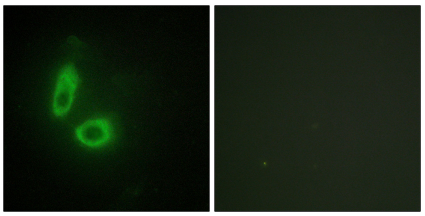
References

Holzman L.B.,et al.Mol. Cell. Biol. 10:5830-5838(1990).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Gregory S.G.,et al.Nature 441:315-321(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Zhang Z.,et al.Protein Sci. 13:2819-2824(2004).

Images



Western blot analysis of lysate from MCF7 cell line,using EFNA1 Antibody(AP50678). AP50678 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.



Immunofluorescence analysis of HeLa cells, using EFNA1 antibody.

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