

Ephrin-A1/EFNA1 Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P75234
Synonyms:	Ephrin-A1; LERK-1; EFNA1; EPLG1; TNFAIP4
Species:	Mouse
Source:	HEK293
Accession:	P52793 (D19-S182)
Gene ID:	13636
Molecular Weight:	Approximately 53 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>The Ephrin-A1/EFNA1 protein, a cell surface GPI-bound ligand for Eph receptors, serves a pivotal role in migration, repulsion, and adhesion during neuronal, vascular, and epithelial development. It binds promiscuously to Eph receptors on adjacent cells, instigating contact-dependent bidirectional signaling. Crucial in angiogenesis and tumor neovascularization, EFNA1-induced RAC1 GTPase activation and vascular endothelial cell migration depend on the recruitment of VAV2, VAV3, and the PI3-kinase p85 subunit by phosphorylated EPHA2. Notably, EFNA1 exerts anti-oncogenic effects by activating and down-regulating EPHA2 through induced tyrosine phosphorylation, leading to internalization and degradation. In gliomas, it acts as a negative regulator, down-regulating EPHA2 and FAK and thus playing a role in suppressing tumorigenesis. EFNA1 can induce the collapse of embryonic neuronal growth cones and regulate dendritic spine morphogenesis. Existing as both a monomer and homodimer, it forms heterodimers with EPHA2 and binds to a spectrum of receptor tyrosine kinases including EPHA1, EPHA3, EPHA4, EPHA5, EPHA6, and EPHA7.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA