

## Ephrin A1/EFNA1 Protein, Human, Recombinant (hFc)

### General Information

Synonyms:	EPLG1;TNFAIP4;ECKLG;LERK-1;LERK1;EFL1;EFNA1;B61;ephrin-A1
Protein Construction:	A DNA sequence encoding the human EFNA1 (NP_004419.2) (Met1-Ser182) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Asp 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P20827-1
Molecular Weight:	46.08 kDa (predicted)

### QC Testing

Biological Activity:	Immobilized Ephrin-A1 Protein, Human, Recombinant (hFc Tag) at 2 µg/mL (100 µL/well) can bind EphA2 Protein, Mouse, Recombinant (His Tag), the EC50 is 13-64 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

EPH-related receptor tyrosine kinase ligand 1 (abbreviated as Ephrin-A1) also known as ligand of eph-related kinase 1 or EFNA1, is a member of the ephrin (EPH) family. The Eph family receptor interacting proteins (ephrins) are a family of proteins that serve as the ligands of the Eph receptor, which compose the largest known subfamily of receptor protein-tyrosine kinases (RTKs). Ephrin-A1/EFNA1 and its Eph family of receptor tyrosine kinases are expressed by cells of the SVZ. Ephrin subclasses are further distinguished by their mode of attachment to the

plasma membrane: ephrin-A ligands bind EphA receptors and are anchored to the plasma membrane via a glycosylphosphatidylinositol (GPI) linkage, whereas ephrin-B ligands bind EphB receptors and are anchored via a transmembrane domain. An exception is the EphA4 receptor, which binds both subclasses of ephrins. Ephrin-A1 and one of its receptor EphA2 were expressed in xenograft endothelial cells and also tumor cells and play a role in human cancers, at least in part by influencing tumor neovascularization.

### Reference

- Deroanne C, et al. (2003) EphrinA1 inactivates integrin-mediated vascular smooth muscle cell spreading via the Rac/PAK pathway. *J Cell Sci.* 116(7): 1367-76.
- Ojima T, et al. (2006) EphrinA1 inhibits vascular endothelial growth factor-induced intracellular signaling and suppresses retinal neovascularization and blood-retinal barrier breakdown. *Am J Pathol.* 168(1): 331-9.
- Wu D, et al. (2004) Prognostic value of EphA2 and EphrinA-1 in squamous cell cervical carcinoma. *Gynecol Oncol.* 94(2): 312-9.

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