

# Rat Ephrin-A1 / EFNA1 Protein (His Tag)

Catalog Number: 80115-R08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

EFNA1

### Protein Construction:

A DNA sequence encoding the rat EFNA1 (P97553) (Met1-His181) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

## QC Testing

Purity: > 95 % as determined by SDS-PAGE

### Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized Rat EFNA1-His (Cat:80115-R08H) at 10 µg/mL (100 µl/well) can bind biotinylated mouse EPHA2-His (Cat:50586-M08H) with a linear range of 6.25-200 ng/ml.

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 18

### Molecular Mass:

The recombinant rat EFNA1 comprises 175 amino acids and predicts a molecular mass of 20.7 kDa. The apparent molecular mass of the rat EFNA1 is approximately 27 kDa in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

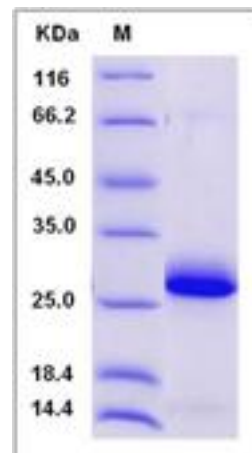
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

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.

## References

- 1.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.
- 2.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.
- 3.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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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

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