

# Human Ephrin-A3 / EFNA3 Protein (His Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 10188-H08H

## General Information

### Gene Name Synonym:

EFL2; Ehk1-L; EPLG3; LERK3

### Protein Construction:

A DNA sequence encoding the human EphrinA3 (NP\_004943.1) (Met 1-Ser 213) with the C-terminal propeptide removed was expressed, with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its ability to compete with human EphrinA3 / Fc for binding to immobilized mouse EphA6-his in a functional ELISA assay.**

### 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:** Gln 23

### Molecular Mass:

The recombinant human EphrinA3 consists of 202 amino acids after removal of the signal peptide and has a predicted molecular mass of 23 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhEphrinA3 is approximately 35-40 kDa 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:

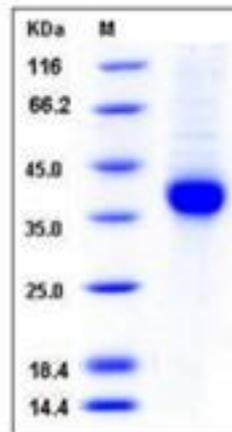
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Ephrin-A3 also known as EPH-related receptor tyrosine kinase ligand 3 or EFNA3, is a member of the ephrin 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-A3 and their 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-A3 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. Ephrin-A3 expressed on astrocytes activates EphA4 on the post-synaptic neuron and restricts the growth of dendritic spines through multiple pathways.

## References

- 1.Klein R. (2009) Bidirectional modulation of synaptic functions by Eph/ephrin signaling. *Nat Neurosci.* 12(1): 15-20.
- 2.Lai KO, *et al.* (2009) Synapse development and plasticity: roles of ephrin/Eph receptor signaling. *Curr Opin Neurobiol.* 19(3): 275-83.
- 3.Prevoost N, *et al.* (2002) Interactions between Eph kinases and ephrins provide a mechanism to support platelet aggregation once cell-to-cell contact has occurred. *Proc Natl Acad Sci U S A.* 99(14): 9219-24.

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