

# Human Ephrin-A5 / EFNA5 Protein (Fc Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 10192-H02H

## General Information

### Gene Name Synonym:

AF1; EFL5; EPLG7; GLC1M; LERK7; RAGS

### Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Asn 203) of human Ephrin-A5 (NM\_001962.1) precursor was expressed with the C-terminal fused Fc region of human IgG1.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

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

### 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 21

### Molecular Mass:

The recombinant human Ephrin-A5/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 421 amino acids and has a calculated molecular mass of 47.9 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of the monomer is approximately 50-55 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:

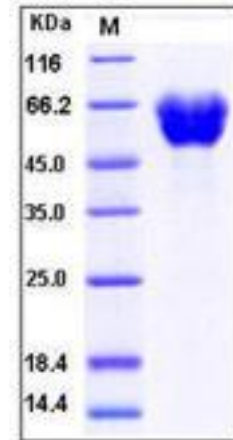
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Ephrin-A5 also known as EFNA5, 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 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. Ephrin-A5/EFNA5 may function actively to stimulate axon fasciculation. The interaction of EFNA5 with EPHA5 also mediates communication between pancreatic islet cells to regulate glucose-stimulated insulin secretion. Ephrin-A5/EFNA5 also serves as a cognate/functional ligand for EPHA7, their interaction regulates brain development modulating cell-cell adhesion and repulsion.

## References

1. Frisén J, *et al.* (1998) Ephrin-A5 (AL-1/RAGS) is essential for proper retinal axon guidance and topographic mapping in the mammalian visual system. *Neuron*. 20(2): 235-43. 2. Feldheim DA, *et al.* (2000) Genetic analysis of ephrin-A2 and ephrin-A5 shows their requirement in multiple aspects of retinocollicular mapping. *Neuron*. 25(3): 563-74. 3. Wahl S, *et al.* (2000) Ephrin-A5 induces collapse of growth cones by activating Rho and Rho kinase. *J Cell Biol*. 149(2): 263-70.

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