Rat Ephrin-A5 / EFNA5 Protein (Fc Tag)

Catalog Number: **80105-R02H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AL-1, AV158822, EFL-5, Ephrin-A5, Epl7, LERK-7, RAGS

Protein Construction:

A DNA sequence encoding the mature form of rat EFNA5 (P97605) (Met 1-Glu 202) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized recombinant Rat EPHA4 Protein (His Tag) (Cat: 80123-R08H) at 10 μg/mL (100 μl/well) can bind Recombinant rat EFNA5-Fc (Cat: 80105-R02H) with a linear range of 7.8-12.5 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 ℃

Predicted N terminal: Phe 17

Molecular Mass:

The recombinant rat EFNA5/Fc is a disulfide-linked homodimer. The reduced monomer comprises 423 amino acids and predicts a molecular mass of 48 kDa. The apparent molecular mass of the rat EFNA5/Fc monomer is approximately 55 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

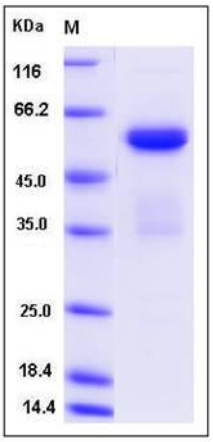
Usage Guide

Storage:

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

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Ephrin-A5, also known as AL-1, RAGS, or LERK-7 (ligand for eph-related kinases, 7), is a member of the ephrin ligand family which binds the members of Eph receptor subfamily of tyrosine kinases. Based on their structure and sequence relationships, ephrins are divided into ephrin-A and ephrin-B class, and ephrin-A members are anchored to the membrane by GPI linkage. Ephrin-A5 is expressed with the highest levels in human adult brain, heart, spleen, and ovary and human fetal brain, lung, and kidney. This ligand has been reported to bind Eph A2, Eph A3, Eph A4, Eph A5, Eph A6, Eph A7, Eph A8, and Eph B2 receptors. The interactions between Eph receptors and their ephrin ligands have been implicated in mediating developmental events, particularly in the nervous system through regulating cell migration and axon pathfinding. It has been reported that Ephrin-A5 prevents axon bundling in cocultures of cortical neurons with astrocytes, a model of late stage nervous system development and differentiation. The ephrins (EPH) and EPH-related receptors comprise the largest subfamily of receptor protein-tyrosine kinases (RTKs), and have been involved in a variety of biological processes, especially in the nervous system and in erythropoiesis, such as axon guidance and topographic map formation, synaptic plasticity, angiogenesis, and meanwhile have possible contributions to tumor growth and metastasis. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class which are anchored to the membrane by a GPI linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. 14 receptors and 8 ligands have been reported in mammals.

References

1. Stein E. et al., 1999, J Neurosci. 19: 8885-93.
2. Wilkinson DG. 2001, Nat Rev Neurosci. 2: 155-164.
3. Cheng N. et al., 2002, Cytokine Growth Factor Rev. 13: 75-85.
4. Himanen JP. et al., 2004, Nat Neurosci. 7: 501-9.
5. Eberhart J. et al., 2004, J Neurosci. 24: 1070-8.
6. Irie F. et al., 2008, Proc Nat Acad Sci. 105: 12307-12.