Rat Ephrin-A5 / EFNA5 Protein (His Tag)

Catalog Number: **80105-R08H**

General Information

Gene Name Synonym:

EFNA5

Protein Construction:

A DNA sequence encoding the rat EFNA5 (P97605) (Met 1-Glu 202), without the pro peptide, was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized rat EFNA5-His at 10 μg/ml (100 μl/well) can bind rat EPHA3-Fc (Cat:80465-R02H), The EC_{50} of rat EPHA3-Fc (Cat:80465-R02H) is 12.1-28.3 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: Gln 21

Molecular Mass:

The recombinant rat EFNA5 comprises 193 amino acids and predicts a molecular mass of 22.5 kDa. The apparent molecular mass of the ratEFNA5 is approximately 27 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.5

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:

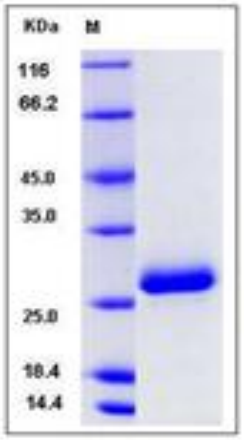
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.