Human Ephrin-A3 / EFNA3 Protein (His Tag)

Catalog Number: **10188-H08H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

EFNA3, EFL2, EPLG3, Ehk1-L, 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: Human 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 ℃

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 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.

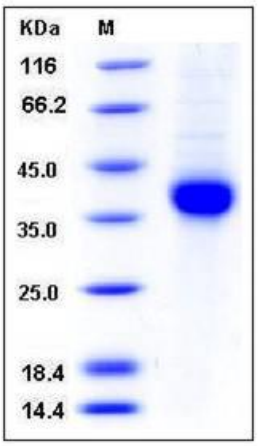
Usage Guide

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

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, and EphrinA3 is capable of binding EphA2, EphA3, EphA4, EphA5, EphA6, EphA7, EphA8, and EphB1. The EphrinA3 ligand may interact with the EphA5 receptor to restrict entorhinal axon terminals in the outer molecular layer of the dentate gyrus. Furthermore, Research evidences indicated that ephrin-A3, but not other ligands, binds to heparan sulfate, and the presence of cell surface heparan sulfate is required for the full biological activity of ephrin-A3.

References

1. Zhou, R. Pharmacol. Ther. 77: 151-181.
2. Stein, E. et al., 1999, J. Neurosci. 19: 8885-8893.
3. Cheng, N. et al., 2002, Cytokine. Growth. Factor. Rev. 13: 75-85.
4. Irie, F. et al., 2008, Proc. Nat. Acad. Sci. 105: 12307-12312.