Human Ephrin-B1 / EFNB1 Protein (His & Fc Tag)

Catalog Number: **10894-H03H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

CFND; CFNS; EFB1; EFL3; Elk-L; EPLG2; LERK2; Cek5-L; EFL-3; Elk-L; Epl2; Eplg2; LERK-2; Lerk2; Stra1

Protein Construction:

A DNA sequence encoding the human EFNB1 (NP_004420.1) extracellular domain (Met 1-Gly 232) was was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > (79.7+18.0) % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA . Immobilized mouse EphB3 at 2 μg/ml (100 μl/well) can bind human EFNB1 Fc chimera with a linear ranger of 1.56-25 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: Leu 28

Molecular Mass:

The recombinant human EFNB1/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 458 amino acids and predicts a molecular mass of 51.2 KDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of the protein is approximately 64 and 36 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:

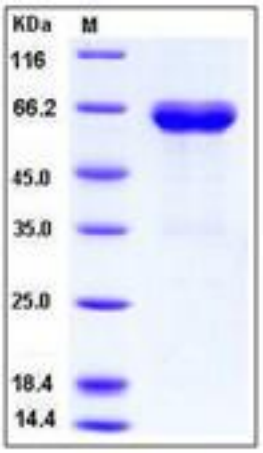
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Ephrin-B1 also known as EFNB1, is a member of the ephrin family. The transmembrane- associated ephrin ligands and their Eph family of receptor tyrosine kinases are expressed by cells of the SVZ. Eph/ephrin interactions are implicated in axon guidance, neural crest cell migration, establishment of segmental boundaries, and formation of angiogenic capillary plexi. Eph receptors and ephrins are divided into two subclasses, A and B, based on binding specificities. 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. An exception is the EphA4 receptor, which binds both subclasses of ephrins. EphrinB1 and B class Eph receptors provide positional cues required for the normal morphogenesis of skeletal elements. Another malformation, preaxial polydactyly, was exclusively seen in heterozygous females in which expression of the X-linked ephrinB1 gene was mosaic, so that ectopic EphB-ephrinB1 interactions led to restricted cell movements and the bifurcation of digital rays.

References

1.Davy A, *et al.* (2004) Ephrin-B1 forward and reverse signaling are required during mouse development. Genes Dev. 18(5): 572-83.
2.Compagni A, *et al.* (2003) Control of skeletal patterning by ephrinB1-EphB interactions. Dev Cell. 5(2): 217-30.
3.Wieland I, *et al.* (2004) Mutations of the ephrin-B1 gene cause craniofrontonasal syndrome. Am J Hum Genet. 74(6): 1209-15.