Human Ephrin-B2 / EFNB2 Protein

Catalog Number: **10881-HCCH**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

EPLG5; Htk-L; HTKL; LERK5

Protein Construction:

A DNA sequence encoding the human EFNB2 (NP_004084.1) (Met1-Ala229) was expressed with six amino acids (ENLYFQ) at the C-terminus was expressed and purified.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1.Measured by its binding ability in a functional ELISA. 2.Immobilized human EFNB2 (Cat:10881-HCCH) at 10μg/mL (100μL/well) can bind biotinylate human EphB4-Fc (Cat:10235-H02H), the EC_{50} of biotinylate human EphB4-Fc is 5-60 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: Ile 28

Molecular Mass:

The recombinant human EFNB2 consists of 209 amino acids and predicts a molecular mass of 23.1 KDa. It migrates as an approximately 32-36 KDa band in SDS-PAGE under reducing conditions.

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:

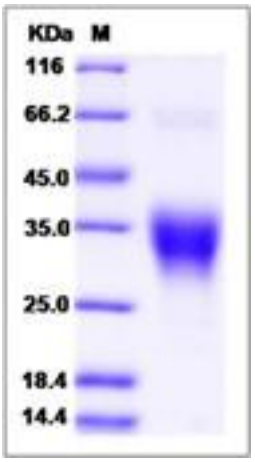
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

EphrinB2 also known as EFNB2 is a member of the ephrin family. EphrinB2 is involved in establishing arterial versus venous identity and perhaps in anastamosing arterial and venous vessels at their junctions. 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. EphrinB2 expression progressively extends from the arterial endothelium to surrounding smooth muscle cells and to pericytes, suggesting that ephrin-B2 may play an important role during formation of the arterial muscle wall.

References

1.Wang HU, *et al.* (1998) Molecular distinction and angiogenic interaction between embryonic arteries and veins revealed by ephrin-B2 and its receptor Eph-B4. Cell. 93(5): 741-53. 2.Gale NW, *et al.* (2001) Ephrin-B2 selectively marks arterial vessels and neovascularization sites in the adult, with expression in both endothelial and smooth-muscle cells. Dev Biol. 230(2): 151-60. 3.Shin D, *et al.* (2001) Expression of ephrinB2 identifies a stable genetic difference between arterial and venous vascular smooth muscle as well as endothelial cells, and marks subsets of microvessels at sites of adult neovascularization. Dev Biol. 230(2): 139-50.