

Canine Ephrin-B2 / EFNB2 Protein (Fc Tag)

Catalog Number: 70073-D02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

EFNB2

Protein Construction:

A DNA sequence encoding the canine EFNB2 (B0LDS6) (Met1-Ala229) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Canine

Expression Host: HEK293 Cells

QC Testing

Purity: (93.5±2.7) % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized human EphB4-His (Cat:10235-H08H) at 10µg/mL (100µL/well) can bind canine EFNB2-Fc3. The EC₅₀ of canine EFNB2-Fc3 is 25.8-60.2 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 °C

Predicted N terminal: Ile 28

Molecular Mass:

The recombinant canine EFNB2/Fc is a disulfide-linked homodimer. The reduced monomer comprises 443 amino acids and has a predicted molecular mass of 49.2 kDa. The apparent molecular mass of the protein is approximately 58 and 35 kDa 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:

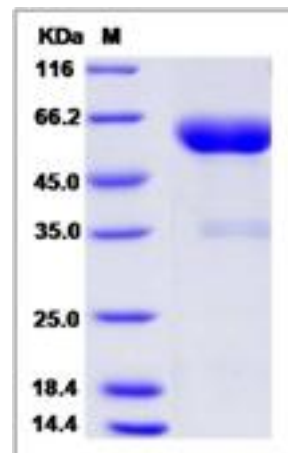
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 anastomosing 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.

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