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

**Catalog Number:** 10894-H03H

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**General Information**

**Gene Name Synonym:**
CFND; CFNS; EFB1; EFL3; Elk-L; EPLG2; LERK2

**Protein Construction:**
A DNA sequence encoding the human EFNB1 (NP_004420.1) extracellular domain (Met 1-Lys 237) was was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 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 range 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 °C

**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 38 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.

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**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.

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**SDS-PAGE:**

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**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**


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For US Customer: Fax: 267-657-0217 Tel: 215-583-7898

Global Customer: Fax: +86-10-5862-8288 Tel:+86-400-890-9989 http://www.sinobiological.com