

Human EphB6 / EphB6 Protein (His Tag)

Catalog Number: 10197-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

HEP

Protein Construction:

The extracellular domain (Met 1-Ser 579) of human EphB6 (NP_004436.1) precursor was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized recombinant human EphB6 at 10 µg/ml (100 µl/well) can bind human EphrinB1 with a linear range of 32-800?ng/ml. 3. Immobilized recombinant human EphB6 at 10 µg/ml (100 µl/well) can bind human EphrinB2 with a linear range of 1.28-32?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 17

Molecular Mass:

The secreted recombinant human EphB6 consists of 574 amino acids and has a calculated molecular mass of 61.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhEphB6 is approximately 60-70 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:

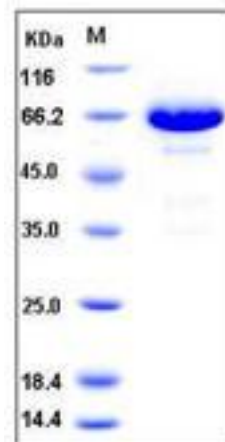
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Ephrins are divided into the ephrin-A (EFNA) class and the ephrin-B (EFNB) class based on their structures and sequence relationships. Ephrin receptors make up the largest subgroup of the receptor tyrosine kinase (RTK) family. EphB6 is an unusual Eph receptor, lacking catalytic capacity due to alterations in its kinase domain. Interestingly, increased metastatic activity is associated with reduced EphB6 receptor expression in several tumor types, including breast cancer. This emphasizes the potential of EphB6 to act as a suppressor of cancer aggressiveness. EphB6 suppress cancer invasiveness through c-Cbl-dependent signaling, morphologic changes, and cell attachment and indicate that EphB6 may represent a useful prognostic marker and a promising target for therapeutic approaches. EphB6 can both positively and negatively regulate cell adhesion and migration, and suggest that tyrosine phosphorylation of the receptor by an Src family kinase acts as the molecular switch for the functional transition. In addition, Ephrin-B2 may be a physiological ligand for the EphB6 receptor.

References

1. Munthe E, *et al.* (2000) Ephrin-B2 is a candidate ligand for the Eph receptor, EphB6. *FEBS Lett.* 466(1): 169-74. 2. Matsuoka H, *et al.* (2005) Biphasic functions of the kinase-defective Ephb6 receptor in cell adhesion and migration. *J Biol Chem.* 280(32): 29355-63. 3. Truitt L, *et al.* (2010) The EphB6 receptor cooperates with c-Cbl to regulate the behavior of breast cancer cells. *Cancer Res.* 70(3): 1141-53.

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

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