

EphB2 active protein

EphB2 Protein, Mouse, Recombinant (hFc Tag)

CATALOG #
AAA258240

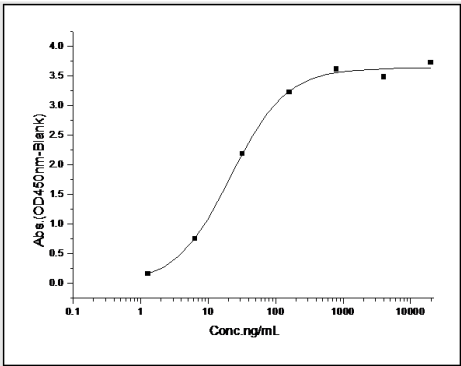
HOST
HEK293 Cells

PRODUCT SYNONYMS

EphB2; EphB2 Protein; Mouse; Recombinant (hFc Tag); Mouse EphB2/Hek5 Protein (Fc Tag); Cek5 Protein; Drt Protein; Erk Protein; ETECK Protein; Hek5 Protein; Nuk Protein; Prkm5 Protein; Qek5 Protein; Sek3 Protein; Tyro5 Protein; EPH receptor B2; EphB2 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Lys54 0
Species	Mouse
Activity	1. Measured by its binding ability in a functional ELISA. 2. Immobilized mouse EFNB2-His (Cat: 50598-M08H) at 10ug/mL (100uL/well) can bind mouse EPHB2-Fc. The EC50 of mouse EPHB2-Fc is 13.2-30.8ng/mL.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Val 19
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the extracellular domain of mouse EPHB2 (NP_034272.1)(Met1-Lys540) was expressed with the Fc region of human IgG1 at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data

Measured by its binding ability in a functional ELISA. Immobilized mouse EFNB2-His at 10 ug/mL (100 uL/well) can bind mouse EPHB2-Fc. The EC50 of mouse EPHB2-Fc is 13.2-30.8 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for EphB2 active protein	Background: Ephrin type-B receptor 2, also known as EphB2, belongs to the ephrin receptor subfamily of the protein-tyrosine kinase family which 16 known receptors (14 found in mammals) are involved: EPHA1, EPHA2, EPHA3, EPHA4, EPHA5, EPHA6, EPHA7, EPHA8, EPHA9, EPHA10, EPHB1, EPHB2, EPHB3, EPHB4, EPHB5, EPHB6. EphB2 receptor tyrosine kinase phosphorylates syndecan-2 and that this phosphorylation event is crucial for syndecan-2 clustering and spine formation. The Eph family of receptor tyrosine kinases (comprising EphA and EphB receptors) has been implicated in synapse formation and the regulation of synaptic function and plasticity6. Ephrin receptors are components of cell signalling pathways involved in animal growth and development, forming the largest sub-family of receptor tyrosine kinases (RTKs). Ligand-mediated activation of Ephs induces various important downstream effects and Eph receptors have been studied for their potential roles in the development of cancer. EphB receptor tyrosine kinases are enriched at synapses, suggesting that these receptors play a role in synapse formation or function. We find that EphrinB binding to EphB induces a direct interaction of EphB with NMDA-type glutamate receptors. This interaction occurs at the cell surface and is mediated by the extracellular regions of the two receptors, but does not require the kinase activity of EphB.
Product Categories/Family for EphB2 active protein	Actin Dynamics Signaling Pathway
References	Zisch AH, et al. (1998) Complex formation between EphB2 and Src requires phosphorylation of tyrosine 611 in the EphB2 juxtamembrane region. Oncogene. 16 (20): 2657-70.Yu HH, et al. (2001) Multiple signaling interactions of Abl and Arg kinases with the EphB2 receptor. Oncogene. 20 (30): 3995-4006.Zisch AH, et al. (2000) Replacing two conserved tyrosines of the EphB2 receptor with glutamic acid prevents binding of SH2 domains without abrogating kinase activity and biological responses. Oncogene. 19 (2): 177-87.

NCBI AND UNIPROT INFORMATION

Molecular Weight	The recombinant mouse EPHB2 comprises 760 amino acids and has a predicted molecular mass of 84.6kDa. The apparent molecular mass of the protein is approximately 96.6kDa in SDS-PAGE under reducing conditions.
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.