

EphB1 active protein

EphB1 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA257999

HOST
HEK293 Cells

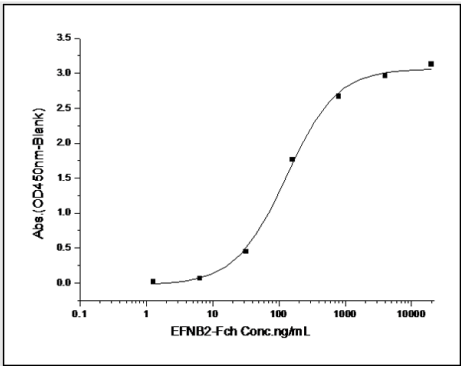
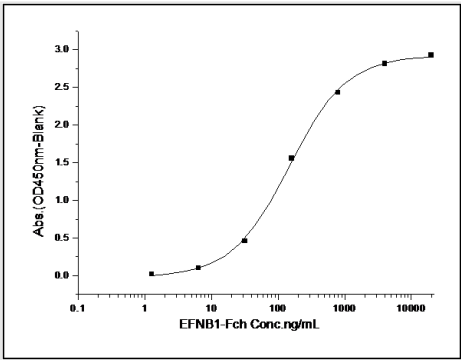
PRODUCT SYNONYMS

EphB1; EphB1 Protein; Human; Recombinant (His Tag); Human EphB1/EPHT2 Protein (His Tag); ELK Protein; EPHT2 Protein; Hek6 Protein; NET Protein; EPH receptor B1; EphB1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4, 5% glycerol. 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-Pro54 0
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Met 18
Tag	C-His
Protein Construction	A DNA sequence encoding the human EPHB1 (P54762-1) extracellular domain (Met 1-Pro 540) was expressed, with a polyhistidine tag 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.
Activity	Measured by its binding ability in a functional ELISA. 1. Immobilized human EPHB1-His at 10ug/ml (100uL/well) can bind human EFNB1-Fc2h with a linear range of 3.125-200ng/mL. 2. Immobilized human EPHB1-His at 10ug/ml (100uL/well) can bind human EFNB2-Fch with a linear range of 0.3125-20ng/mL.
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.

IMAGES



Application Data
Measured by its binding ability in a functional ELISA. Immobilized human EPB1-His at 10 ug/ml (100 ul/well) can bind human EFNB2-Fch with a linear ranger of 0.3125-20 ng/mL.

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Measured by its binding ability in a functional ELISA. Immobilized human EPB1-His at 10 ug/ml (100 ul/well) can bind human EFNB1-Fc2h with a linear ranger of 3.125-200 ng/mL.



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for EphB1 active protein	Background: Ephrin type-B receptor 1, also known as EphB1, 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 EphB1 active protein	Actin Dynamics Signaling Pathway
References	Dalva MB, et al. (2000) EphB receptors interact with NMDA receptors and regulate excitatory synapse formation. Cell. 103(6): 945-56.Takasu MA, et al. (2002) Modulation of NMDA receptor-dependent calcium influx and gene expression through EphB receptors. Science. 295(5554): 491-5.Adams RH, et al. (1999) Roles of ephrinB ligands and EphB receptors in cardiovascular development: demarcation of arterial/venous domains, vascular morphogenesis, and sprouting angiogenesis. Genes Dev. 13(3): 295-306.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4758284
NCBI GeneID	2047
NCBI Accession #	NP_004432.1
NCBI GenBank Nucleotide #	NM_004441.4

UniProt Accession #	P54762 ; O43569 ; O95142 ; O95143 ; Q0VG87 ; A8K593
Molecular Weight	109,885 Da
NCBI Official Full Name	ephrin type-B receptor 1
NCBI Official Synonym Full Names	EPH receptor B1
NCBI Official Symbol	EPHB1
NCBI Official Synonym Symbols	ELK; NET; Hek6; EPHT2
NCBI Protein Information	ephrin type-B receptor 1; EK6; EPH-like kinase 6; eph tyrosine kinase 2; soluble EPHB1 variant 1; tyrosine-protein kinase receptor EPH-2; neuronally-expressed EPH-related tyrosine kinase
UniProt Protein Name	Ephrin type-B receptor 1
UniProt Gene Name	EPHB1
UniProt Synonym Gene Names	ELK; EPHT2; HEK6; NET; EK6; hEK6; NET
UniProt Entry Name	EPHB1_HUMAN

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.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-active-protein/ephb1/257999>