

EphB2 active protein

EphB2 Protein, Human, Recombinant (His & hFc Tag)

CATALOG #
AAA257925

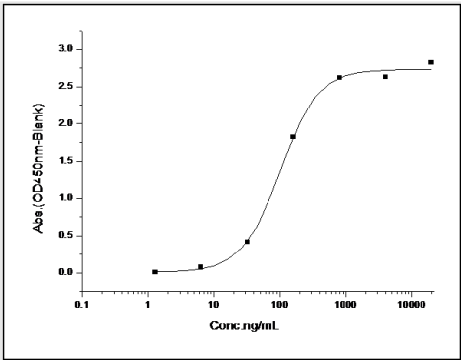
HOST
HEK293 Cells

PRODUCT SYNONYMS

EphB2; EphB2 Protein; Human; Recombinant (His & hFc Tag); Human EphB2 Protein (His & Fc Tag); CAPB Protein; DRT Protein; EK5 Protein; EPHT3 Protein; ERK Protein; Hek5 Protein; PCBC Protein; Tyro5 Protein; EPH receptor B2; EphB2 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>90% 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-Leu54 3
Species	Human
Activity	Measured by its ability to bind recombinant human EphrinB2 in a functional ELISA.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Val 19
Tag	C-human IgG1-Fc & His
Protein Construction	A DNA sequence encoding the extracellular domain (Met 1-Leu 543) of human EphB2 (NP_059145.2) was fused with the C-terminal polyhistidine-tagged 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 ability to bind recombinant human EphrinB2 in a functional ELISA.

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

NCBI GI #	111118978
NCBI GeneID	2048
NCBI Accession #	NP_059145.2
NCBI GenBank Nucleotide #	NM_017449.3
UniProt Accession #	P29323; O43477; Q5T0U6; Q5T0U7; Q5T0U8; Q4LE53; Q6NVW1
Molecular Weight	117,493 Da
NCBI Official Full Name	ephrin type-B receptor 2 isoform 1
NCBI Official Synonym Full Names	EPH receptor B2
NCBI Official Symbol	EPHB2
NCBI Official Synonym Symbols	DRT; EK5; ERK; CAPB; Hek5; PCBC; EPHT3; Tyro5; MGC87492

NCBI Protein Information	ephrin type-B receptor 2; EPH-like kinase 5; OTTHUMP00000002914; OTTHUMP00000002915; OTTHUMP00000002916; OTTHUMP00000002917; eph tyrosine kinase 3; elk-related tyrosine kinase; protein-tyrosine kinase HEK5; tyrosine-protein kinase TYRO5; renal carcinoma a
UniProt Protein Name	Ephrin type-B receptor 2
UniProt Gene Name	EPHB2
UniProt Synonym Gene Names	DRT; EPHT3; EPTH3; ERK; HEK5; TYRO5; EK5; hEK5
UniProt Entry Name	EPHB2_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/ephb2/257925>