Recombinant Human EphB2 Protein (Active)

Catalog No. PKSH031440

Note: Centrifuge before opening to ensure complete recovery of vial contents.

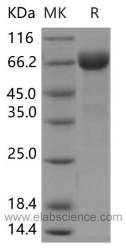
Description

Synonyms	CAPB;DRT;EK5;EPHT3;ERK;Hek5;PCBC;Tyro5
Species	Human
Expression Host	HEK293 Cells
Sequence	Met1-Leu543
Accession	NP_059145.2
Calculated Molecular Weight	59 kDa
Observed molecular weight	66 kDa
Tag	No tag
Bioactivity	Immobilized human EPHB2 at 10 μg/ml (100 μl/well) can bind human EFNB2-Fch, The EC50 of human EFNB2-Fch is 18.2-42.7 ng/ml.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0
Reconstitution	Please refer to the printed manual for detailed information.

Data



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

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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 induce 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.

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