Recombinant Protein Technical Manual

Recombinant Human EphB1/EPHT2 Protein (aa 1-540, His Tag)(Active)

RPES4457

Product Data:

Product SKU: RPES4457

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: P54762

Protein Information:

Molecular Mass:	60 kDa
AP Molecular Mass:	60 kDa
Tag:	C-His
Bio-activity:	Measured by its binding ability in a functional ELISA. Immobilized human EPHB1-His at 10 µg/ml (100 µl/well) can bind human EFNB1-Fc2h with a linear ranger of 3.125-200 ng/mL. Immobilized human EPHB1-His at 10 µg/ml (100 µl/well) can bind human EFNB2-Fch with a linear ranger of 0.3125-20 ng/mL.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. 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 PBS, pH 7.4, 5% glycerol
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	Functional ELISA
Synonyms:	Ephrin Type-A Receptor 7; EPH Homology Kinase 3; EHK-3; EPH-Like Kinase 11; EK11; hEK11; EPHA7; EHK3; HEK11

Immunogen Information:

Sequence: Met 1-Pro 540

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 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.