



Recombinant Protein Technical Manual
Recombinant Human EphB3/HEK2 Protein (aa 585-998, His & GST Tag)(Active)
RPES2518

Product Data:

Product SKU: RPES2518

Size: 20 μ g

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: P54753

Protein Information:

Molecular Mass: 74.7 kDa

AP Molecular Mass: 64 kDa

Tag: N-His & GST

Bio-activity: The specific activity was determined to be 90 nmol/min/mg using Poly(Glu:Tyr) 4:1 as substrate.

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per μ g as determined by the LAL method.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at <-20°C.

Formulation: Supplied as sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: ETK2;HEK2;TYRO6

Immunogen Information:

Sequence: Gln 585-Val 998

Background:

Ephrin type-B receptor 3, also known as EphB3 or HEK2, 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. 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.