



Recombinant Protein Technical Manual

Recombinant Human EphA4 Protein (aa 570-986, His & GST Tag)(Active)

RPES2764

Product Data:

Product SKU: RPES2764

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: P54764

Protein Information:

Molecular Mass: 75 kDa

AP Molecular Mass: 67 kDa

Tag: N-His-GST

Bio-activity: 1. The specific activity was determined to be 17 nmol/min/mg using Poly(Glu:Tyr) 4:1 as substrate. 2. Measured by its binding ability in a functional ELISA. Immobilized human EPHA4 (aa 570-986) at 10 µg/ml (100 µl/well) can bind biotinylated human EphrinA5-His with a linear range of 0.625-5.0 µg/ml.

Purity: > 99 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein 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 8.5, 10% glycerol, 3mM DTT

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

Application: Functional ELISA

Synonyms: Ephrin type-A receptor 4; HEK8; SEK; TYRO1; EPHA4; Tyrosine-protein kinase receptor SEK; Tyrosine-protein kinase TYRO1; EK8; hEK8; EPH-like kinase 8

Immunogen Information:

Sequence: Ser 570-Val 986

Background:

EPH receptor A4 (ephrin type-A receptor 4), also known as EphA4, 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. EphA4 is enriched on dendritic spines of pyramidal neurons in the adult mouse hippocampus, and ephrin-A3 is localized on astrocytic processes that envelop spines. Eph receptor-mediated signaling, which is triggered by ephrins⁷, probably modifies the properties of synapses during synaptic activation and remodeling. Ephrin receptors are components of cell signalling pathways involved in animal growth and development, forming the largest sub-family of receptor tyrosine kinases (RTKs). The extracellular domain of an EphA4 interacts with ephrin ligands, which may be tethered to neighbouring cells. 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.