



# Recombinant Protein Technical Manual

## Recombinant Rat EphA4 Protein (Fc Tag)(Active)

RPES0893

### Product Data:

**Product SKU:** RPES0893

**Size:** 200µg

**Species:** Rat

**Expression host:** HEK293 Cells

**Uniprot:** D3ZZK3

### Protein Information:

**Molecular Mass:** 85.3 kDa

**AP Molecular Mass:** 98 kDa

**Tag:** C-Fc

**Bio-activity:** Measured by its binding ability in a functional ELISA. Immobilized mouse EFNA5-His at 10 µg/ml (100 µl/well) can bind Rat EPHA4-Fc, The EC50 of Rat EPHA4-Fc is 19.8-46.3 ng/ml.

**Purity:** > 98 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein 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°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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

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

**Application:** Functional ELISA

**Synonyms:** EPHA4

## Immunogen Information:

**Sequence:** Met1-Tyr547

## 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 plasticity<sup>6</sup>. 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 ephrins<sup>7</sup>, 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.