Recombinant Human EPHA4 Protein (E252-V986), GST tagged

Cat. No. EPHA4-0978H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GST-TEV-GG-EPHA4(E252-V986 end) Protein was expressed in Insect cell.
Species	Human
Source	Insect Cells
ProteinLength	E252-V986
Description	Receptor tyrosine kinase which binds membrane-bound ephrin family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Highly promiscuous, it has the unique property among Eph receptors to bind and to be physiologically activated by both GPI-anchored ephrin-A and transmembrane ephrin-B ligands including EFNA1 and EFNB3. Upon activation by ephrin ligands, modulates cell morphology and integrin-dependent cell adhesion through regulation of the Rac, Rap and Rho GTPases activity. Plays an important role in the development of the nervous system controlling different steps of axonal guidance including the establishment of the corticospinal projections. May also control the segregation of motor and sensory axons during neuromuscular circuit development. In addition to its role in axonal guidance plays a role in synaptic plasticity. Activated by EFNA1 phosphorylates CDK5 at 'Tyr-15' which in turn phosphorylates NGEF regulating RHOA and dendritic spine morphogenesis. In

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	the nervous system, plays also a role in repair after injury preventing axonal regeneration and in angiogenesis playing a role in central nervous system vascular formation. Additionally, its promiscuity makes it available to participate in a variety of cell-cell signaling regulating for instance the development of the thymic epithelium. During development of the cochlear organ of Corti, regulates pillar cell separation by forming a ternary complex with ADAM10 and CADH1 which facilitates the cleavage of CADH1 by ADAM10 and disruption of adherens junctions.
Form	Liquid
Endotoxin	< 0.01 EU per μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	EPHA4 EPH receptor A4 [Homo sapiens (human)]
Official Symbol	EPHA4
Synonyms	EPHA4; EPH receptor A4; EphA4, TYRO1; ephrin type-A receptor 4; Hek8; EK8;

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	EPH-like kinase 8; TYRO1 protein tyrosine kinase; tyrosine-protein kinase TYRO1; tyrosine-protein kinase receptor SEK; receptor protein-tyrosine kinase HEK8; SEK; HEK8; TYRO1;
Gene ID	2043
mRNA Refseq	NM_004438
Protein Refseq	NP_004429
MIM	602188
UniProt ID	P54764

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