Recombinant EPHB2 protein (His tag)

Catalog Number	546896
Synonyms	Developmentally-regulated Eph-related tyrosine kinase; ELK-related tyrosine kinase; EPH tyrosine kinase 3; EPH-like kinase 5; EK5; hEK5; Renal carcinoma antigen NY-REN-47; Tyrosine-protein kinase TYRO5; Tyrosine-protein kinase receptor EPH-3
Species	Human
Expression System	E. coli
Accession	P29323
Molecular Weight	Predictes a molecular mass of 45.17 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	595-978
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 595-978 aa (P29323) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Ephrin type-B receptor 2 (EPHB2) fragment (amino acids 595-978) is a high-purity protein encompassing the complete Protein kinase and SAM domains. This fragment serves as an essential tool for investigating receptor tyrosine kinase signaling, axon guidance mechanisms, and synaptic regulation in developmental and neurological research. Ephrin type-B receptor 2 (EPHB2) is a receptor tyrosine kinase that promiscuously binds transmembrane ephrin-B ligands on adjacent cells, enabling bidirectional contact-dependent signaling. It plays critical roles in axon guidance during neural development, including directing commissural axons in the cerebral cortex, guiding retinal ganglion cell axons to the optic disk, and regulating inner ear efferent growth cones. Beyond axon guidance, EPHB2 is involved in dendritic spine maturation, excitatory synapse formation, angiogenesis, palate development, and endolymph production in the inner ear. It also functions as a potential tumor suppressor and may regulate platelet activation and blood coagulation. The protein is localized to the cell membrane, with presence in axons and dendrites, highlighting its importance in neuronal structures and intercellular communication.