Recombinant EPHB1 protein (His tag)

Catalog Number	542422
Synonyms	ELK; EPH tyrosine kinase 2; EPH-like kinase 6; EK6; hEK6; Neuronally-expressed EPH-related tyrosine kinase; NET; Tyrosine-protein kinase receptor EPH-2
Species	Human
Expression System	E. coli
Accession	P54762
Molecular Weight	Predictes a molecular mass of 45.98 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	593-984
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 593-984 aa (P54762) 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 EPHB1 (593-984) Fragment: A high-purity protein fragment encompassing the key functional domains (Protein kinase and SAM) of Ephrin type-B receptor 1. This product is engineered for studying receptor tyrosine kinase signaling, axon guidance, and neural development, providing researchers with a targeted tool for domain-specific functional assays. Ephrin type-B receptor 1 (EPHB1) is a receptor tyrosine kinase that promiscuously binds transmembrane ephrin-B ligands (e.g., EFNB1, EFNB2, EFNB3), enabling contact-dependent bidirectional signaling between adjacent cells. It regulates critical processes in nervous system development, including retinal axon guidance at the optic chiasm, hippocampal neural progenitor chemotaxis/proliferation, and dendritic spine maturation. EPHB1 also influences angiogenesis, cell migration, and adhesion via MAPK/ERK and JNK pathway activation, and supports muscle stem cell maintenance. The protein localizes to the cell membrane, early endosomes, and dendritic projections, facilitating its role in intercellular communication and targeted cellular responses.