EphB3 Protein, Mouse (525a.a, HEK293, His)

Cat. No.:	HY-P78294
Synonyms:	EK2; ETK2; HEK2; TYRO6; EPHB3; AW456895; Cek10; MDK5; Sek4; EC 2.7.10; EC 2.7.10.1
Species:	Mouse
Source:	HEK293
Accession:	P54754 (L30-L554)
Gene ID:	13845
Molecular Weight:	65-70 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The EphB3 protein, a receptor tyrosine kinase, engages in promiscuous binding to transmembrane ephrin-B family ligands on adjacent cells, initiating contact-dependent bidirectional signaling. The downstream pathway originating from the receptor is known as forward signaling, while the signaling pathway downstream of the ephrin ligand is termed reverse signaling. EphB3 generally exhibits an overlapping and redundant function with EPHB2, particularly in axon guidance during development, regulating neurons forming the corpus callosum and the anterior commissure—two major interhemispheric connections between the temporal lobes of the cerebral cortex. Alongside its role in axon guidance, EphB3 plays a crucial redundant role with other ephrin-B receptors in the development and maturation of dendritic spines and the formation of excitatory synapses. The protein also governs various aspects of development, including angiogenesis, palate development, and thymic epithelium development. Through both forward and reverse signaling within the EFNB2/EPHB3 complex, EphB3 regulates the migration and adhesion of cells involved in tubularizing the urethra and septating the cloaca. Notably, EphB3 plays a significant role in intestinal epithelium differentiation by segregating progenitor cells from differentiated cells in the crypt.

Caution: Product has not been fully validated for medical applications. For research use only.

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