EphB2 Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P700716
Synonyms:	DRT; ERK; HEK5; TYRO5; CAPB; EK5; EPHT3; PCBC; Cek5; EphB2; EPHT3MGC87492; Nuk; Qek2; Sek3
Species:	Cynomolgus
Source:	HEK293
Accession:	A0A7N9CQH5 (V19-P542)
Gene ID:	/
Molecular Weight:	65-75 kDa

PROPERTIES

Biological Activity	Immobilized Cynomolgus EPHB2, His Tag at 0.5μg/ml (100μl/Well) on the plate. Dose response curve for Anti-EPHB2 Antibody, hFc Tag with the EC_{50} of 8.3ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
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.
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 EphB2 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. EphB2 functions prominently in axon guidance during development, particularly in guiding commissural axons that form a major interhemispheric connection between the two temporal lobes of the cerebral cortex. Additionally, it is involved in guiding contralateral inner ear efferent growth cones at the midline and steering retinal ganglion cell axons to the optic disk. Beyond its role in axon guidance, EphB2 regulates the development and maturation of dendritic spines and stimulates the formation of excitatory synapses. Activation by EFNB1 abolishes ARHGEF15-mediated negative regulation on excitatory synapse formation. EphB2 controls various aspects of development, including angiogenesis, palate development, and inner ear development by regulating endolymph production. The EFNB2/EPHB2 complex, through both forward and reverse signaling, regulates the movement and adhesion of cells that tubularize the urethra and septate the cloaca. Moreover, EphB2 may function as a tumor suppressor and be involved in the regulation of platelet activation and blood

	coagulation.

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

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