EphA7 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P75746
Synonyms:	Ephrin Type-A Receptor 7; mDK-1; EHK-3; EBK
Species:	Mouse
Source:	HEK293
Accession:	Q61772 (Q28-I556)
Gene ID:	13841
Molecular Weight:	Approximately 68-77 kDa

PROPERTIES

AA Sequence	Q A A K E V L L L D S K A Q Q T E L E W I S S P P S G W E E I S G L D E N Y T P I R T Y Q V C Q V M E P N Q N N W L R T N W I S K G N A Q R I F V E L K F T L R D C N S L P G V L G T C K E T F N L Y Y Y E T D Y D T G R N I R E N L Y V K I D T I A A D E S F T Q G D L G E R K M K L N T E V R E I G P L S K K G F Y L A F Q D V G A C I A L V S V K V Y Y K K C W S I V E N L A V F P D T V T G S E F S S L V E V R G T C V S S A E E E A E N S P R M H C S A E G E W L V P I G K C I C K A G Y Q Q K G D T C E P C G R R F Y K S S S Q D L Q C S R C P T H S F S D R E G S S R C E C E D G Y Y R A P S D P P Y V A C T R P P S A P Q N L I F N I N Q T T V S L E W S P P A D N G G R N D V T Y R I L C K R C S W E Q G E C V P C G S N I G Y M P Q Q T G L E D N Y V T V M D L L A H A N Y T F E V E A V N G V S D L S R S Q R L F A A V S I T T G Q A A P S Q V S G V M K E R V L Q R S V Q L S W Q E P E H P N G V I T E Y E I K Y Y E K D Q R E R T Y S T L K T K S T S A S I N N L K P G T V Y V F Q I R A V T A A G Y G N Y S P R L D V A T L E E A S G K M F E A T A V S S E Q N P V I
Biological Activity	1.Measured by its binding ability in a functional ELISA. Immobilized Mouse EphA7 at 2 μg/mL (100 μL/well) can bind biotinylated Mouse Ephrin-A4. The ED_{50} for this effect is ≤45.87 ng/mL. 2.Measured by its binding ability in a functional ELISA. Immobilized Mouse EphA7 at 10 μg/mL (100 μL/well) can bind biotinylated Mouse Ephrin-A4. The ED_{50} for this effect is ≤21 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 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	EphA7 protein, a receptor tyrosine kinase, binds to GPI-anchored ephrin-A ligands on neighboring cells, initiating contact-dependent bidirectional signaling. This receptor is involved in forward signaling, while the ephrin ligand triggers reverse signaling. Among the ephrin-A ligands, EFNA5 specifically interacts with EphA7, regulating brain development by influencing cell-cell adhesion and repulsion. EphA7 also plays a crucial role in axon guidance, ensuring the proper mapping of corticothalamic and retinal axons. Additionally, EphA7 may contribute to brain development through its proapoptotic activity, which depends on caspase (CASP3). Activation of EphA7 can lead to phosphorylation of components of the ERK signaling pathway, including MAP2K1, MAP2K2, MAPK1, and MAPK3. Isoform 4, lacking the kinase domain, may also regulate the adhesive properties of isoform 1.

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