

EphA7 Protein, Rat (HEK293, His)

Cat. No.:	HY-P76320
Synonyms:	Ephrin Type-A Receptor 7; EPH Homology Kinase 3; EHK-3; EPH-Like Kinase 11; EK11; EPHA7; HEK11
Species:	Rat
Source:	HEK293
Accession:	P54759 (Q28-S539)
Gene ID:	171287
Molecular Weight:	Approximately 65-72 kDa.

PROPERTIES

AA Sequence	<pre> 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 I 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 E 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 F T A A G Y G N Y S P R L D V A T L E E A S </pre>
Biological Activity	Measured by its binding ability in a functional ELISA. When Recombinant Rat EphA7 is immobilized at 10 µg/mL (100 µL/well) can bind Biotinylated Recombinant mouse Ephrin-A4. The ED ₅₀ for this effect is 212.3 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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. 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 is a receptor tyrosine kinase that interacts with GPI-anchored ephrin-A ligands on adjacent cells, initiating bidirectional signaling. This contact-dependent signaling, known as forward signaling, occurs downstream of the receptor, while reverse signaling occurs downstream of the ephrin ligand. Among the ephrin-A ligands, EFNA5 specifically interacts with EphA7, influencing brain development by modulating cell-cell adhesion and repulsion. EphA7 also plays a role in axon guidance, facilitating the proper mapping of corticothalamic and retinal axons. Additionally, EphA7 may contribute to brain development through a proapoptotic activity that depends on caspase (CASP3). Activation of EphA7 can lead to phosphorylation of components of the ERK signaling pathway, including MAP2K1, MAP2K2, MAPK1, and MAPK3.

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

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