

## EphA7 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P70842
<b>Synonyms:</b>	Ephrin Type-A Receptor 7; EPH Homology Kinase 3; EHK-3; EPH-Like Kinase 11; EK11; hEK11; EPHA7; EHK3; HEK11
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q15375 (Q28-I556)
<b>Gene ID:</b>	2045
<b>Molecular Weight:</b>	Approximately 72.0 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 N 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 I 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 A 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 G F Y K S S	S Q D L Q C S R C P	T H S F S D K 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 V 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 T G K M F E A T A
V S S E Q N P V I			

**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 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, 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<sub>2</sub>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.

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## DESCRIPTION

### Background

The EphA7 protein, a receptor tyrosine kinase, engages in promiscuous binding to GPI-anchored ephrin-A family ligands on adjacent cells, initiating contact-dependent bidirectional signaling. The downstream pathway originating from the receptor is termed forward signaling, while the pathway downstream of the ephrin ligand is referred to as reverse signaling. Among the GPI-anchored ephrin-A ligands, EFNA5 serves as a cognate/functional ligand for EPHA7, regulating brain development and modulating cell-cell adhesion and repulsion. EphA7 exhibits repellent activity on axons, playing a crucial role in guiding corticothalamic axons and ensuring the proper topographic mapping of retinal axons to the colliculus. Additionally, EphA7 may contribute to brain development through a caspase (CASP3)-dependent proapoptotic activity. Forward signaling through EphA7 may result in the activation of components of the ERK signaling pathway, including MAP2K1, MAP2K2, MAPK1, and MAPK3, which are phosphorylated upon EphA7 activation.

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

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