EphA3 Protein, Rat (HEK293, His)

Cat. No.:	HY-P75743
Synonyms:	Ephrin type-A receptor 3; EPH-like kinase 4; hEK4; EPHA3; ETK; ETK1; HEK; TYRO4
Species:	Rat
Source:	HEK293
Accession:	EDL75897 (E21-H541)
Gene ID:	/
Molecular Weight:	Approximately 75-95 kDa

PROPERTIES

AA Sequence

E L S P Q P S N E V N L L D S K T I Q G E L G W I S Y P S H G W E E I S G V D E
H Y T P I R T Y Q V C N V M D H S Q N N W L R T N W V P R N S A Q K I Y V E L K
F T L R D C N S I P L V L G T C K E T F N L Y Y M E S D D D H G V K F L E H Q F
T K I D T I A A D E S F T Q M D L G D R I L K L N T E I R E V G P V N K K G F Y
L A F Q D V G A C V A L V S V R V Y F K K C P F T V K N L A M F P D T V P M D S
Q S L V E V R G S C V N N S K E E D P P R M Y C S T E G E W L V P I G K C T C N
A G Y E E R G F I C Q A C R P G F Y K A L D G V A K C T K C P P H S S T Q E D G
S M N C R C E N N Y F R A E K D P P S M A C T R P P S A P R N V I S N I N E T S
V I L D W S W P L D T G G R K D I T F N I I C K K C G W N V R Q C E P C S P N V
R F L P R Q L G L T N T T V T V T D L L A H T N Y T F E I D A I N G V S E L S S
P P R Q F A A V S I T T N Q A A P S P V M T I K K D R T S R N S I S L S W Q E P
E H P N G I I L D Y E V K Y Y E K Q E Q E T S Y T I L R A R G T N V T I S S L K
P D T T Y V F Q I R A R T A A G Y G T N S R K F E F E T S P D S F S I S G E N S
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Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized rat EPHA3 at 10 μg/mL (100 μL/well) can bind rat EFNA5, The ED_{50} for this effect is 155.8 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	The EphA3 protein, a receptor tyrosine kinase, engages in promiscuous binding to membrane-bound ephrin family ligands on adjacent cells, initiating contact-dependent bidirectional signaling. The downstream pathway originating from the receptor is known as forward signaling, while the pathway downstream of the ephrin ligand is termed reverse signaling. Highly promiscuous for ephrin-A ligands, EphA3 exhibits a preferential binding affinity for EFNA5. Upon activation by EFNA5, EphA3 plays a pivotal role in regulating cell-cell adhesion, cytoskeletal organization, and cell migration. Additionally, EphA3 is implicated in cardiac cell migration and differentiation, regulating the formation of the atrioventricular canal and septum during development, likely through activation by EFNA1. In the context of retinotectal mapping, EphA3 is involved in the guidance of neurons. Furthermore, EphA3 may control the segregation, though not the guidance, of motor and sensory axons during neuromuscular circuit development.

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