

## EphA1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P75241
Synonyms:	Ephrin type-A receptor 1; hEpha1; EPHA1; EPH; EPHT; EPHT1
Species:	Mouse
Source:	HEK293
Accession:	Q60750 (E27-E548)
Gene ID:	13835
Molecular Weight:	Approximately 68 kDa

### PROPERTIES

#### AA Sequence

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E E V T L M D T S T   A Q G E L G W L L D   P P E T G W S E V Q   Q M L N G T P L Y M
Y Q D C P I Q E G G   D T D H W L R S N W   I Y R G E E A S R I   Y V E L Q F T V R D
C K S F P G G A G P   L G C K E T F N L F   Y M E S D Q D V G I   Q L R R P L F Q K V
T T V A A D Q S F T   I R D L A S G S V K   L N V E R C S L G H   L T R R G L Y L A F
H N P G S C V A L V   S V R V F Y Q R C A   E T V H G L A H F P   D T L P G P G G L V
E V A G T C L S H A   Q I S L G S S G T P   R M H C S P D G E W   L V P V G Q C Q C E
P G Y E E S S G N V   G C T A C P T G F Y   R V D M N T L R C L   K C P Q H S I A E S
E G S T I C T C E N   G H Y R A P G E G P   Q V A C T R P P S A   P Q N L S F S T S G
T Q L S L R W E P P   R D T G G R H D I R   Y S V E C L Q C R G   I A Q D G G P C Q P
C G K G V H F S P A   A S G L T T S T V Q   V Q G L E P Y A N Y   T F T V K S Q N R V
S G L D S S S P S S   A S L S I N M G H A   E S L S G L S L K L   V K K E P R Q L E L
T W A G S R P R N P   G G N L S Y E L H V   L N Q D E E W H Q M   V L E P R V L L T K
L Q P D T T Y I V R   V R T L T P L G P G   P F S P D H E F R T   S P P V S R S L T G
G E

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**Biological Activity** Immobilized rmEphA1 at 2 µg/mL (100 µL/well) can bind Biotinylated rmEphrin-A1. The ED<sub>50</sub> for this effect is 28.67 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<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. 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 EphA1 protein, a receptor tyrosine kinase, engages in promiscuous binding to membrane-bound ephrin-A 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. EphA1 exhibits low-affinity binding to EFNA3 and EFNA4 and high-affinity binding to EFNA1, which likely constitutes its cognate/functional ligand. Upon activation by EFNA1, EphA1 induces cell attachment to the extracellular matrix, inhibiting cell spreading and motility through the regulation of ILK and downstream RHOA and RAC. Additionally, EphA1 plays a role in angiogenesis and regulates cell proliferation. It may also be involved in apoptosis processes, contributing to its diverse cellular functions.

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

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