

## EphA4 Protein, Human (HEK293, His-Fc)

|                   |   |
|-------------------|---|
| Cat. No.:         | HY-P72994   |
| Synonyms:         | Ephrin type-A receptor 4; EPH-like kinase 8; EK8; EPHA4; HEK8; SEK; TYRO1 |
| Species:          | Human   |
| Source:           | HEK293  |
| Accession:        | P54764 (M1-T547)  |
| Gene ID:          | 2043  |
| Molecular Weight: | 100-110 kDa   |

### PROPERTIES

|                     |   |
|---------------------|---|
| AA Sequence         | <p> MAGIFYFALF    SCLFGICDAV    TGSRVYPANE    VTLLDSRSVQ<br/> GELGWIASPL    EGGWEEVSIM    DEKNTPIRTY    QVCNVMEPSQ<br/> NNWLRTDWIT    REGAQRVYIE    IKFTLRDCNS    LPGVMGTCKE<br/> TFNLYYYESD    NDKERFIREN    QFVKIDTIAA    DESFTQVDIG<br/> DRIMKLNTEI    RDVGPLSKKG    FYLAFQDVGA    CIALVSVRVF<br/> YKKCPLTVRN    LAQFPDTITG    ADTSSLVEVR    GSCVNNSEEK<br/> DVPKMYCGAD    GEWLVPIGNC    LCNAGHEERS    GECQACKIGY<br/> YKALSTDATC    AKCPPHSYSV    WEGATSCTCD    RGFFRADNDA<br/> ASMPCTRPPS    APLNLI SNVN    ETSVNLEWSS    PQNTGGRQDI<br/> SYNVVCKKCG    AGDPSKCRPC    GSGVHYTPQQ    NGLKTTKVS I<br/> TDLLAHTNYT    FEIWA VNGVS    KYNPNPDQSV    SVTVTTNQAA<br/> PSSIALVQAK    EVTRYSVALA    WLEPDRPNGV    ILEYEVKYYE<br/> KDQNERSYRI    VRTAARNTDI    KGLNPLTSYV    FHVRARTAAG<br/> YGDFSEPLEV    TTNTVPSRII    GDGANST </p> |
| 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 PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.   |
| 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.   |
| 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 EphA4 protein is a receptor tyrosine kinase that interacts with membrane-bound ephrin ligands on adjacent cells, enabling bidirectional signaling. It can be activated by both GPI-anchored ephrin-A and transmembrane ephrin-B ligands, such as EFNA1 and EFNB3. Activation of EphA4 modulates cell morphology and integrin-dependent cell adhesion by regulating the activity of Rac, Rap, and Rho GTPases. In the nervous system, EphA4 plays a crucial role in axonal guidance, including corticospinal projections and segregation of motor and sensory axons during neuromuscular circuit development. It also contributes to synaptic plasticity and is involved in repair after injury, preventing axonal regeneration. EphA4's promiscuity allows it to participate in various cell-cell signaling processes, including the development of the thymic epithelium. Furthermore, it regulates pillar cell separation in the cochlear organ of Corti by forming a complex with ADAM10 and CADH1, leading to the disruption of adherens junctions. EphA4 phosphorylates CAPRIN1, promoting the formation of a membraneless compartment.

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

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