

EphA7 Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	EHK-3;EPHA7;Eph receptor A7;EK11;EHK3;HEK11
Protein Construction:	A DNA sequence encoding the human EPHA7 (NP_004431) (Gly579-Val998) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q15375-1
Molecular Weight:	75.2 kDa (predicted); 76 kDa (reducing conditions)

QC Testing

Biological Activity:	The specific activity was determined to be 9.5 nmol/min/mg using Poly(Glu:Tyr) 4:1 as substrate.
Purity:	≥ 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Supplied as sterile 20 mM Tris, 500 mM NaCl, pH 8.0, 10% gly.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

Ephrin type-A receptor 7, also known as EphA7, belongs to the ephrin receptor subfamily of the protein-tyrosine kinase family which 16 known receptors (14 found in mammals) are involved: EPHA1, EPHA2, EPHA3, EPHA4, EPHA5, EPHA6, EPHA7, EPHA8, EPHA9, EPHA10, EPHB1, EPHB2, EPHB3, EPHB4, EPHB5, EPHB6. The Eph family of receptor tyrosine kinases (comprising EphA and EphB receptors) has been implicated in synapse formation and the regulation of synaptic function and plasticity⁶. Eph receptor-mediated signaling, which is triggered by ephrins⁷, probably modifies the properties of synapses during synaptic activation and remodeling. Ephrin receptors are components of cell signalling pathways involved in animal growth and development, forming the largest sub-family of receptor tyrosine kinases (RTKs). Ligand-mediated activation of Ephs induces various

important downstream effects and Eph receptors have been studied for their potential roles in the development of cancer. Down-regulation of EphA7 secondary to hypermethylation has been reported in colorectal cancer. The expression of EphA7 was reduced in all tested gastric cancer cell lines; however, there is marked variability in expression among gastric carcinoma specimens. EphA7 may have roles in the pathogenesis and development of gastric carcinomas.

Reference

Rashid T, et al. (2005) Opposing gradients of ephrin-As and EphA7 in the superior colliculus are essential for topographic mapping in the mammalian visual system. *Neuron*. 47(1): 57-69.

Wang J, et al. (2007) Differential expression of EphA7 receptor tyrosine kinase in gastric carcinoma. *Hum Pathol*. 38 (11): 1649-56.

Rogers JH, et al. (1999) Distribution of the receptor EphA7 and its ligands in development of the mouse nervous system. *Brain Res Mol Brain Res*. 74(1-2): 225-30.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481