

Mouse EphA7 / EHK-3 Protein (His Tag)

Catalog Number: 50587-M08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

Cek11; Ebk; Ekh3; Hek11; Mdk1; RP23-33D17.1

Protein Construction:

A DNA sequence encoding the mouse EPHA7 isoform 1 (Q61772-1) extracellular domain (Met 1-Ile 556) was fused with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA
• Immobilized mouse EphA7 at 2 µg/ml (100 µl/well) can bind mouse EphrinA4 with a linear range of 0.08-10 ng/ml

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Lys 30

Molecular Mass:

The secreted recombinant mouse EPHA7 consists of 537 amino acids and has a predicted molecular mass of 60.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmEPA7 is approximately 70 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

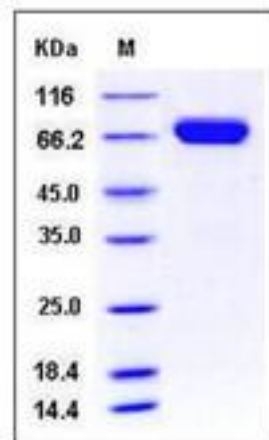
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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, EPHA1, 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 induce 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.

References

1. 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.
2. Wang J, et al. (2007) Differential expression of EphA7 receptor tyrosine kinase in gastric carcinoma. *Hum Pathol*. 38(11): 1649-56.
3. 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.

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For US Customer: Fax: 267-657-0217

● **Tel: 215-583-7898**

Global Customer: Fax :+86-10-5862-8288

● **Tel: +86-400-890-9989**

● <http://www.sinobiological.com>