Rat EphA7 / Eph Receptor A7 Protein (Fc Tag)

Catalog Number: **80109-R02H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

EHK-3; EHK3; EK11; EPHA7; HEK11; Cek11; Ebk; Ehk3; Hek11; Mdk1; RP23-33D17.1; Ehk-3; Ehk3

Protein Construction:

A DNA sequence encoding the rat Epha7 (NP_599158.1) (Met1-Ser539) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized mouse EFNA4-His(Cat:50595-M08) at 10 μg/ml (100 μl/well) can bind rat EPHA7-Fc3, The EC_{50} of rat EPHA7-Fc3 is 10-30 ng/mL.

Endotoxin:

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

Stability:

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

Predicted N terminal: Gln 28

Molecular Mass:

The recombinant rat Epha7 consists 523 amino acids and predicts a molecular mass of 58.9 kDa.

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:

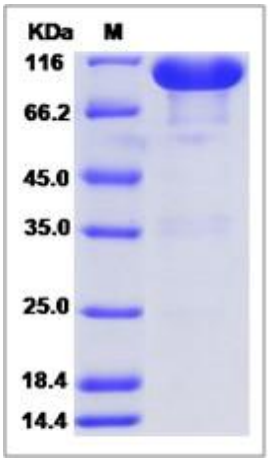
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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, 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 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.