Data Sheet (Cat.No.TMPY-05049)

TargetMol

TIE2 Protein, Rhesus, Recombinant (His)

General Information

Synonyms:	TEK tyrosine kinase, endothelial
Protein Construction:	A DNA sequence encoding the Rhesus TEK (XP_001105270.1) (Met1-Lys745) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Ala 23
Species:	Rhesus
Expression Host:	HEK293 Cells
Accession:	G7NFP9
Molecular Weight:	84.2 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

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 recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

TEK, or TIE-2, is an endothelial cell-specific receptor tyrosine kinase (RTK) that is known as a functioning molecule of vascular endothelial cells. TEK comprises a subfamily of RTK with TIE, and these two receptors play critical roles in vascular maturation, maintenance of integrity and remodeling. Targeted mutagenesis of both Tek and its agonistic ligand, Angiopoietin-1, result in embryonic lethality, demonstrating that the signal transduction pathways mediated by this receptor are crucial for normal embryonic development. TEK signaling is indispensable

for the development of the embryonic vasculature and suggests that TEK signaling may also be required for the development of the tumor vasculature.

Reference

Jones N, et al. (1998) The Tek / Tie2 receptor signals through a novel Dok-related docking protein, Dok-R. Oncogene. 17(9): 1097-108.

Sato A, et al. (1998) Characterization of TEK receptor tyrosine kinase and its ligands, Angiopoietins, in human hematopoietic progenitor cells. Int Immunol. 10(8): 1217-27.

Huang L, et al. (1995) GRB2 and SH-PTP2: potentially important endothelial signaling molecules downstream of the TEK / TIE2 receptor tyrosine kinase. Oncogene. 11(10): 2097-103.