Recombinant Human TEK Tyrosine Kinase, Endothelial, His-tagged

Cat. No. TEK-390H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human TEK(a.a. 771-end) with N-terminal His tag, MW=45 kDa, expressed in an Baculovirusinfected Sf9 cell expression system.
Species	Human
Source	Sf9 Cells
ProteinLength	771-end a.a.
Description	The TEK receptortyrosine kinase is expressed almost exclusively in endothelial cells in mice,rats, and humans. This receptor possesses a unique extracellular domaincontaining 2 immunoglobulin-like loops separated by 3 epidermal growth factor-likerepeats that are connected to 3 fibronectin type III-like repeats. The ligandfor the receptor is angiopoietin-1. Defects in TEK are associated withinherited venous malformations; the TEK signaling pathway appears to becritical for endothelial cell-smooth muscle cell communication in venousmorphogenesis. TEK is closely related to the TIE receptor tyrosine kinase.
Molecule Weight	45 kDa
Form	25 mM Tris-HCl, pH8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, and 3 mM DTT.
Purity	Greater than 90% bySDS-PAGE

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Specific Activity	140 U/g. One unitis defined as the amount of enzyme that will phosphorylate 1 pmol of Tyrsubstrate per minute at pH 7.4 and 30°C. Assay buffer: 50 mM HEPES, pH 7.4, 3mM MgCl2, 3 mM MnCl2, 1 mM DTT, 3 μM Na-orthovanadate, 0.5 mM ATP, 30 μg/mlPoly (Glu:Tyr) 4:1 substrate, and 2 μg/ml recombinant Tie2.
Applications	usefulfor the study of enzyme kinetics, screening inhibitors, and selectivityprofiling.
Storage	>6 months at –80°C.
OfficialSymbol	TEK
Pathways	Angiogenesis;Angiopoietin receptor Tie2-mediated signaling; Cell surface interactions atthe vascular wall; Hemostasis; Rheumatoid arthritis; Tie2 Signaling

GENE INFORMATION

Gene Name	TEK TEK tyrosine kinase,endothelial [Homo sapiens]
Synonyms	TEK; TEK tyrosinekinase, endothelial; TIE2; VMCM; TIE-2; VMCM1; CD202B; angiopoietin-1receptor; hTIE2; p140 TEK; OTTHUMP00000021167; OTTHUMP00000227067; OTTHUMP00000227068;OTTHUMP00000227069; soluble TIE2 variant 1; soluble TIE2 variant 2;tyrosine-protein kinase receptor TEK; tunica interna endothelial cell kinase;tyrosine-protein kinase receptor TIE-2; EC 2.7.10.1
Gene ID	7010
mRNA Refseq	NM_000459
Protein Refseq	NP_000450
MIM	600221

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UniProt ID	Q02763
Chromosome Location	9p21
Function	ATP binding;nucleotide binding; protein binding; protein kinase activity; proteintyrosine kinase activity; receptor activity; transmembrane receptor proteintyrosine kinase activity
PDB rendering basedon 1fvr.	

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