

Recombinant Human TEK, His-tagged

Cat. No. TEK-31525TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant fragment of Human TIE2 (amino acids 771-end) with an N terminal His tag.
Species	Human
ProteinLength	771-end a.a.
Description	The TEK receptor tyrosine kinase is expressed almost exclusively in endothelial cells in mice, rats, and humans. This receptor possesses a unique extracellular domain containing 2 immunoglobulin-like loops separated by 3 epidermal growth factor-like repeats that are connected to 3 fibronectin type III-like repeats. The ligand for the receptor is angiopoietin-1. Defects in TEK are associated with inherited venous malformations; the TEK signaling pathway appears to be critical for endothelial cell-smooth muscle cell communication in venous morphogenesis. TEK is closely related to the TIE receptor tyrosine kinase.
Conjugation	HIS
Tissue specificity	Predominantly expressed in endothelial cells and their progenitors, the angioblasts. Has been directly found in placenta and lung, with a lower level in umbilical vein endothelial cells, brain and kidney.
Biological activity	140 U/μg. One unit is defined as the amount of enzyme that will phosphorylate 1 pmol of Tyr substrate per minute at pH 7.4 and 30°C. Assay buffer: 50 mM HEPES, pH 7.4, 3 mM MgCl ₂ , 3 mM MnCl ₂ , 1 mM DTT, 3

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	μM Na-orthovanadate, 0.5 mM ATP, 30 μg/ml Poly (Glu
Form	Liquid
Storage buffer	Preservative: None Constituents: 50% Glycerol, 0.05% Tween 20, 3mM DTT, 25mM Tris HCl, 100mM Sodium chloride, pH 8
Storage	Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.
Sequence Similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. Tie subfamily. Contains 3 EGF-like domains. Contains 3 fibronectin type-III domains. Contains 2 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.

GENE INFORMATION

Gene Name	TEK TEK tyrosine kinase, endothelial [Homo sapiens]
Official Symbol	TEK
Synonyms	TEK; TEK tyrosine kinase, endothelial; venous malformations, multiple cutaneous and mucosal , VMCM; angiopoietin-1 receptor; CD202b; TIE 2; TIE2; VMCM1;
Gene ID	7010
mRNA Refseq	NM_000459
Protein Refseq	NP_000450
MIM	600221

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Uniprot ID	Q02763
Chromosome Location	9p21
Pathway	Angiogenesis, organism-specific biosystem; Angiotensin receptor Tie2-mediated signaling, organism-specific biosystem; Cell surface interactions at the vascular wall, organism-specific biosystem; Hemostasis, organism-specific biosystem; Rheumatoid arthritis, organism-specific biosystem;
Function	ATP binding; nucleotide binding; protein binding; protein kinase activity; protein tyrosine kinase activity;

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