

Recombinant Human TEK Tyrosine Kinase, Endothelial, His-tagged

Cat. No. TEK-547H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human TIE 2 was expressed by <i>baculovirus in Sf9 insect cells</i> using an N-terminal GST tag. MW = 61 kDa.
Species	Human
Source	Sf9 Cells
Description	TIE 2 or TEK is a receptor tyrosine kinase that is expressed principally on vascular endothelium. Disrupting TIE 2 function in mice results in embryonic lethality with defects in embryonic vasculature, suggesting a role in blood vessel maturation and maintenance. Angiopoietin-1 is a secreted growth factor that binds to and activates the TIE 2 receptor tyrosine kinase. SHP2 and GRB2 are recruited to the activated TIE 2 kinase domain and are part of the cellular responses that mediate TIE 2 function. TIE 2 expression is upregulated in the endothelium of vascular "hot spots" in human breast cancer specimens. However, TIE 2 is also overexpressed in areas of active angiogenesis in normal tissues.
Purity	>60% by SDS-PAGE.
Specific Activity	140 U/ug. 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 uM Na-orthovanadate, 0.5 mM ATP, 30 ug/ml Poly (Glu:Tyr)4:1 substrate, and 2 ug/ml recombinant Tie2.

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Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, and 3 mM DTT.
Stability	>6 months at –80°C.

GENE INFORMATION

Gene Name	TEK TEK tyrosine kinase, endothelial [Homo sapiens]
Synonyms	TEK; TEK tyrosine kinase, endothelial; TIE2; VMCM; TIE-2; VMCM1; CD202B; soluble TIE2 variant 1; soluble TIE2 variant 2; p140 TEK
Gene ID	7010
mRNA Refseq	NM_000459
Protein Refseq	NP_000450
MIM	600221
UniProt ID	Q02763
Chromosome Location	9p21
Pathway	Hemostasis; Signaling in Immune system
Function	ATP binding; nucleotide binding; protein binding; receptor activity; transferase activity; transmembrane receptor protein tyrosine kinase activity

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