

## 32-13007: TEK Human

<b>Application :</b>	Functional Assay
<b>Alternative Name :</b>	TEK Receptor Tyrosine Kinase, Tyrosine Kinase With Ig And EGF Homology Domains-2, Tunica Interna Endothelial Cell Kinase, Tyrosine-Protein Kinase Receptor TIE-2, Tyrosine-Protein Kinase Receptor TEK, TEK Tyrosine Kinase, Endothelial, Endothelial Tyrosine Kinase, EC 2.7.10.1, VMCM1, VMCM, TIE2, Venous Malformations, Multiple Cutaneous And Mucosal, Angiopoietin-1 Receptor, CD202b Antigen, EC 2.7.10, P140 TEK, CD202B, GLC3E, TIE-2, HTIE2.

### Description

Source: Sf9, Baculovirus cells.

Sterile Filtered colorless solution.

TIE-1 (tyrosine kinase with Ig and EGF homology domains 1) and TIE-2/Tek comprise a receptor tyrosine kinase (RTK) subfamily with unique structural characteristics: two immunoglobulin-like domains flanking three epidermal growth factor (EGF)-like domains and followed by three fibronectin type III-like repeats in the extracellular region and a split tyrosine kinase domain in the cytoplasmic region. These receptors are expressed primarily on endothelial and hematopoietic progenitor cells and play critical roles in angiogenesis, vasculogenesis and hematopoiesis. Human TIE-1 cDNA encodes a 1122 amino acid (aa) residue precursor protein with an 18 residue putative signal peptide, a 726 residue extracellular domain and a 353 residue cytoplasmic domain. Two ligands, angiopoietin-1 (Ang1) and angiopoietin-2 (Ang2), which bind TIE-2 with high-affinity have been identified. Ang2 has been reported to act as an antagonist for Ang1. Mice engineered to overexpress Ang2 or to lack Ang1 or Tie-1 display similar angiogenic defects.

TEK produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 965 amino acids (23-748 a.a.) and having a molecular mass of 107.9kDa. (Molecular size on SDS-PAGE will appear at approximately 100-150 kDa). TEK is expressed with a 239 amino acid hlgG-His-tag at C-Terminus and purified by proprietary chromatographic techniques.

### Product Info

<b>Amount :</b>	2 µg / 10 µg
<b>Purification :</b>	Greater than 90.0% as determined by SDS-PAGE.
<b>Content :</b>	TEK protein solution (0.5mg/ml) contains 10% glycerol & Phosphate Buffered Saline (pH 7.4). Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
<b>Storage condition :</b>	
<b>Amino Acid :</b>	AMDLILINSL PLVSDAETSL TCIASGWRPH EPITIGRDFE ALMNQHQDPL EVTQDVTREW AKKVWVKREK ASKINGAYFC EGRVRGEAIR IRTMKMRQQA SFLPATLTMT VDKGDNVNIS FKKVLIKEED AVIYKNGSFI HSVPRHEVPD ILEVHLPAAQ PQDAGVYSAR YIGGNLFTSAÂ FTRLIVRRCE AQKWGPECNH LCTACMNGV CHEDTGECIC PPGFMGRTCE KACELHTFGR TCKERCSGQE GCKSYVFCLP DPYGCSCATG WKGLQCNEAC HPGFYGPDC KLRSCNNGEM CDRFQGCLCS PGWQGLQCER EGIPRMTPKI VDLPDHIEVN SGKFNPIKA SGWPLPTNEEÂ MTLVKPDGTV LHPKDFNHTD HFSVAIFTIH RILPPDSGVW VCSVNTVAGM VEKPFNISVK VLPKPLNAPN VIDTGHNFV INISSEPYFG DGPIKSKLL YKPVNHYEAW QHIQVTNEIV TLNYLEPRTE YELCVQLVRR GEGGEGHPGP VRRFTTASIG LPPRGLNLL PKSQTTNLTA WQPIFPSSD DFYVEVERRS VQKSDQQNIK VPGNLTSVLL NNLHPREQYV VRARVNTKAQ GEWSEDLTAW TLDILPPQP ENIKSNITH SSAVISWTL DGYSISSITI RYKVQGKNE DQHVDVKIKNA TITQYQLKGL EPETAYQVDI FAENNIGSSN PAFSHELVT L PESQAPADLGÂ GGKMLLLEPK SCDKTHTCP CPAPELLGGP SVFLFPPKPK DTLMSRTP E VTCVVVDVSH EDPEVKFNWY VDGVEVHNAK TKPREEQYNS TYRVVSVLTV LHQDWLNGKE YKCKVSNKAL PAPIEKTISK AKGQPREPQV YTLPPSRDEL TKNQVSLTCL VKGFYPSDIA VEWESNGQPEÂ NNYKTTTPVL DSDGSFFLYS KLTVDKSRWQ QGNVFSCSVM HEALHNHYTQ KSLSLSPGKH HHHHHH.

### Application Note

Measured by the ability of the binding activity in a functional ELISA. The ED50 range  $\leq 1 \mu\text{g/ml}$ .