Product Data Sheet

Product Name:	TEK Human
Cat. No.:	GP22632
Batch No.:	1

Product Data

Purity	>98%	Source	Sf9,Baculovirus cells.
Phycical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	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.		

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Amino Acid Sequence	AMDLILINSL PLVSDAETSL TCIASGWRPH EPITIGRDFE ALMNQHQDPL EVTQDVTREW AKKVVWKREK ASKINGAYFC EGRVRGEAIR IRTMKMRQQA SFLPATLTMT VDKGDNVNIS FKKVLIKEED AVIYKNGSFI HSVPRHEVPD ILEVHLPHAQ PQDAGVYSAR YIGGNLFTSAFTRLIVRRCE AQKWGPECNH LCTACMNNGV CHEDTGECIC PPGFMGRTCE KACELHTFGR TCKERCSGQE GCKSYVFCLP DPYGCSCATG WKGLQCNEAC HPGFYGPDCK LRCSCNNGEM CDRFQGCLCS PGWQGLQCER EGIPRMTPKI VDLPDHIEVN SGKFNPICKA SGWPLPTNEEMTLVKPDGTV LHPKDFNHTD HFSVAIFTIH RILPPDSGVW VCSVNTVAGM VEKPFNISVK VLPKPLNAPN VIDTGHNFAV INISSEPYFG DGPIKSKKLL YKPVNHYEAW QHIQVTNEIV TLNYLEPRTE YELCVQLVRR GEGGEGHPGP VRRFTTASIG LPPPRGLNLL PKSQTTLNLTWQPIFPSSED DFYVEVERRS VQKSDQQNIK VPGNLTSVLL NNLHPREQYV VRARVNTKAQ GEWSEDLTAW TLSDILPPQP ENIKISNITH SSAVISWTIL DGYSISSITI RYKVQGKNED QHVDVKIKNA TITQYQLKGL EPETAYQVDI FAENNIGSSN PAFSHELVTL PESQAPADLGGGKMLLLEPK SCDKTHTCPP CPAPELLGGP SVFLFPPKPK DTLMISRTPE VTCVVVDVSH EDPEVKFNWY VDGVEVHNAK TKPREEQYNS TYRVVSVLTV LHQDWLNGKE YKCKVSNKAL PAPIEKTISK AKGQPREPQV YTLPPSRDEL TKNQVSLTCL VKGFYPSDIA VEWESNGQPENNYKTTPPVL DSDGSFFLYS KLTVDKSRWQ QGNVFSCSVM HEALHNHYTQ KSLSLSPGKH HHHHH.
Formulation	TEK protein solution (0.5mg/ml) contains 10% glycerol & Phosphate Buffered Saline (pH 7.4).

Introduction

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.

Stability

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.

Background

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 hIgG-His-tag at C-Terminus and purified by proprietary chromatographic techniques.

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