

## Product datasheet for **AR31062PU-N**

### CD202b / TEK (C-term, His-tag) Mouse Protein

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	CD202b / TEK (C-term, His-tag) mouse recombinant protein, 10 µg
<b>Species:</b>	Mouse
<b>Expression Host:</b>	Insect
<b>Expression cDNA Clone or AA Sequence:</b>	<p>AMDLILINSL PLVSDAETLT CIASGWHPHE PITIGRDFEA LMNQHQDPLE VTQDVTREWA            KKVWVKREKA SKINGAYCEG RVRGQAIRIR TMKMRQQASF LPATLTMTVD RGDNVNISFK            KVLIKEEAVI YKNGSIHSVP RHEVPDILEV HLPHAQPQDA GVYSARYIGG NLFTSAFTRL IVRCEAQKW            GPDCRPCTTC KNNGVCHEDT GECICPPGFM GRTCEKACEP HTFGRTCKER CSGPEGCKSY            VFCPPYGCSC ATGWRGLQCN EACPSGYYGP DCKLRCHCTN EEICDRFQGC LCSQGWQGLQ            CKEGRPRMTP QIEDLPDIE VNSGKFNPIC KASGWPLPTS EEMTLVKPDG TVLQPNDFN            DRFSVAIFTV NVLPPDSGVW VCSVNTVAGM VEKPFNISVK VLPEPLHAPN VIDTGHNFI NISSEPYFGD            GPIKSKLKY KPVNQAWKYI EVTNEIFTLN YLEPRTDY            ELCVQLARPE GGEGHPGPVR RFTTASIGLP PPRGLSLLPK SQTALNLTWQ PIFTNSEDEF            YVEVERRSQT TSDQQNIKVP GNLTSVLLSN LVPREQYTVR ARVNTKAQGE WSEELRAWTL            SDILPPQNIK ISNITDSTAM VSWTIVDGYS ISSIIRYKV QGKNEQDQID VKIKNATVTQ YQLKGPEPETT            YHVDIFAENN IGSSNPAFSH ELRTLPHSPA SATRHHHHHH</p>
<b>Tag:</b>	His-tag
<b>Predicted MW:</b>	95 kDa
<b>Purity:</b>	>95%
<b>Buffer:</b>	<p>Presentation State: Purified            State: Lyophilized purified protein.            Buffer System: PBS without stabilizer</p>
<b>Bioactivity:</b>	<p>Biological: Measured in a functional ELISA assay.            When TIE-2 is immobilized at 4 µg/mL (100 µl/well), it binds recombinant human Angiopoietin-2 with a linear range of 2-100 ng/ml.</p>
<b>Endotoxin:</b>	< 0.1ng per µg sTIE-2
<b>Reconstitution Method:</b>	<p>The lyophilised sTIE-2 is soluble in water and most aqueous buffers.            The lyophilised sTIE-2 should be restored in PBS or medium to a concentration not lower than 50 µg/ml.</p>
<b>Preparation:</b>	Lyophilized purified protein.



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<b>Protein Description:</b>	Recombinant Mouse soluble TIE-2 was fused with a 6x His-tag at the C-terminus.
<b>Storage:</b>	Samples are stable for 2-4 weeks at 2-8°C. sTIE-1 should be stored in working aliquots at -20°C to -80°C. Avoid repeated freeze-thaw cycles!
<b>RefSeq:</b>	<a href="#">NP_001277478</a>
<b>Locus ID:</b>	21687
<b>UniProt ID:</b>	<a href="#">Q02858</a>
<b>Cytogenetics:</b>	4 43.34 cM
<b>Synonyms:</b>	AA517024; Cd202b; Hyk; STK1; Tie-2; Tie2
<b>Summary:</b>	<p>Tyrosine-protein kinase that acts as cell-surface receptor for ANGPT1, ANGPT2 and ANGPT4 and regulates angiogenesis, endothelial cell survival, proliferation, migration, adhesion and cell spreading, reorganization of the actin cytoskeleton, but also maintenance of vascular quiescence. Has anti-inflammatory effects by preventing the leakage of proinflammatory plasma proteins and leukocytes from blood vessels. Required for normal angiogenesis and heart development during embryogenesis. Required for post-natal hematopoiesis. After birth, activates or inhibits angiogenesis, depending on the context. Inhibits angiogenesis and promotes vascular stability in quiescent vessels, where endothelial cells have tight contacts. In quiescent vessels, ANGPT1 oligomers recruit TEK to cell-cell contacts, forming complexes with TEK molecules from adjoining cells, and this leads to preferential activation of phosphatidylinositol 3-kinase and the AKT1 signaling cascades. In migrating endothelial cells that lack cell-cell adhesions, ANGPT1 recruits TEK to contacts with the extracellular matrix, leading to the formation of focal adhesion complexes, activation of PTK2/FAK and of the downstream kinases MAPK1/ERK2 and MAPK3/ERK1, and ultimately to the stimulation of sprouting angiogenesis. ANGPT1 signaling triggers receptor dimerization and autophosphorylation at specific tyrosine residues that then serve as binding sites for scaffold proteins and effectors. Signaling is modulated by ANGPT2 that has lower affinity for TEK, can promote TEK autophosphorylation in the absence of ANGPT1, but inhibits ANGPT1-mediated signaling by competing for the same binding site. Signaling is also modulated by formation of heterodimers with TIE1, and by proteolytic processing that gives rise to a soluble TEK extracellular domain. The soluble extracellular domain modulates signaling by functioning as decoy receptor for angiopoietins. TEK phosphorylates DOK2, GRB7, GRB14, PIK3R1, SHC1 and TIE1.[UniProtKB/Swiss-Prot Function]</p>