

Recombinant human TIE2 protein ab196080

2 图像

描述	
产品名称	重组人TIE2蛋白
生物活性	<p>Specific Activity: 1400 pmol/min/μg.</p> <p>Assay Conditions: Enzyme reaction is conducted in a buffer containing 50 mM HEPES (pH 7.5), 10 mM MgCl2, 1 mM EGTA, 200 μM ATP, 0.01% Brij-35, 2 μM substrate (Tyr Peptide 5, Z-lyte kinase assay kit), and enzyme at 37°C for 1 hour.</p>
纯度	<p>>= 80 % SDS-PAGE.</p> <p>Affinity purified.</p>
表达系统	Baculovirus infected Sf9 cells
Accession	<u>Q02763</u>
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
序列	<p>QLKRANVQRRMAQAFQNVREEPAVQFNSGTLALNRKVKNNPDP PTIYPVLD WNDIKFQDVIGEGNFGQVLKARIKKDGLRMDAAIKRMKEYAS KDDHRDFA GELEVLCKLGHPNIINLLGACEHRGYLYLAIEYAPHGNLLD FLRKSRVL ETDPAFAIANSTASTLSSQQLLHFAADVARGMDYLSQKQFIH RDLAARNI LVGENYVAKIADFGLSRGQEVYVKKTMGRLPVRWMAIESLNY SVYTTNSD VWSYGVLLWEIVSLGGTPYCGMTCAELYEKLPQGYRLEKPLN CDDEVYDL MRQCWREKPYERPSFAQILVSLNRMLEERKTYVNTTLYEKFT YAGIDCSA EEAA</p>
预测分子量	66 kDa including tags
氨基酸	771 to 1124
标签	GST tag N-Terminus
额外的序列信息	GenBank Accession No. NM_000459

技术指标

Our **Abpromise guarantee** covers the use of **ab196080** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	SDS-PAGE
	Functional Studies

形式	Liquid
----	--------

制备和贮存

稳定性和存储	<p>Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 8.00</p> <p>Constituents: 0.63% Tris HCl, 0.64% Sodium chloride, 0.02% Potassium chloride, 0.49% Glutathione, 0.05% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 20% Glycerol (glycerin, glycerine)</p> <p>This product is an active protein and may elicit a biological response in vivo, handle with caution.</p>
--------	---

常规信息

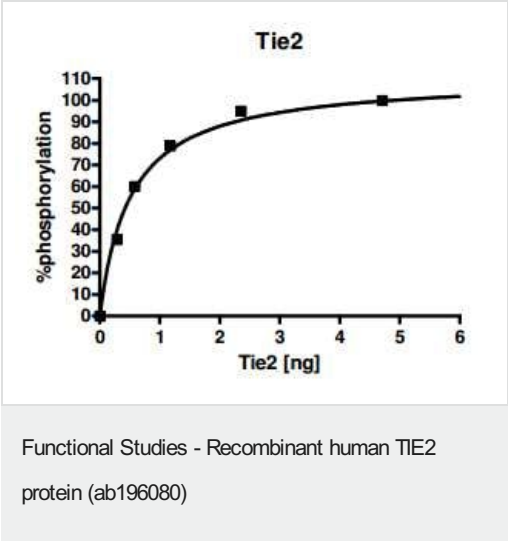
功能	<p>Tyrosine-protein kinase that acts as cell-surface receptor for ANGPT1, ANGPT2 and ANGPT4 and regulates angiogenesis, endothelial cell survival, proliferation, migration, adhesion and cell spreading, reorganization of the actin cytoskeleton, but also maintenance of vascular quiescence. Has anti-inflammatory 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.</p>
----	---

组织特异性	<p>Detected in umbilical vein endothelial cells. Proteolytic processing gives rise to a soluble extracellular domain that is detected in blood plasma (at protein level). 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.</p>
-------	--

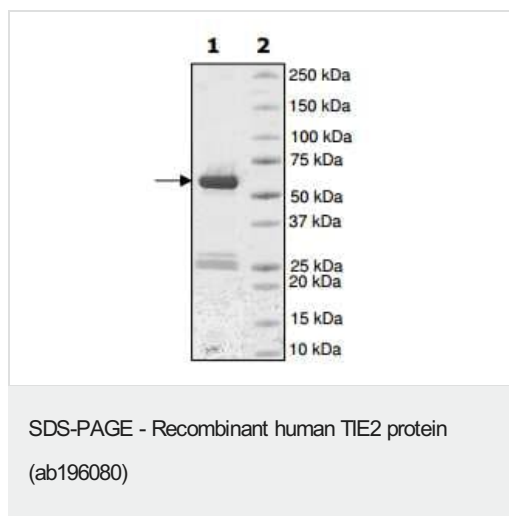
疾病相关	<p>Dominantly inherited venous malformations</p> <p>May play a role in a range of diseases with a vascular component, including neovascularization of tumors, psoriasis and inflammation.</p>
------	---

序列相似性	<p>Belongs to the protein kinase superfamily. Tyr protein kinase family. Tie subfamily.</p> <p>Contains 3 EGF-like domains.</p> <p>Contains 3 fibronectin type-III domains.</p> <p>Contains 2 Ig-like C2-type (immunoglobulin-like) domains.</p> <p>Contains 1 protein kinase domain.</p>
结构域	<p>The soluble extracellular domain is functionally active in angiopoietin binding and can modulate the activity of the membrane-bound form by competing for angiopoietins.</p>
翻译后修饰	<p>Proteolytic processing leads to the shedding of the extracellular domain (soluble TIE-2 alias sTIE-2).</p> <p>Autophosphorylated on tyrosine residues in response to ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Autophosphorylation occurs in a sequential manner, where Tyr-992 in the kinase activation loop is phosphorylated first, followed by autophosphorylation at Tyr-1108 and at additional tyrosine residues. ANGPT1-induced phosphorylation is impaired during hypoxia, due to increased expression of ANGPT2. Phosphorylation is important for interaction with GRB14, PIK3R1 and PTPN11. Phosphorylation at Tyr-1102 is important for interaction with SHC1, GRB2 and GRB7. Phosphorylation at Tyr-1108 is important for interaction with DOK2 and for coupling to downstream signal transduction pathways in endothelial cells. Dephosphorylated by PTPRB. Ubiquitinated. The phosphorylated receptor is ubiquitinated and internalized, leading to its degradation.</p>
细胞定位	<p>Cell membrane. Cell junction. Cell junction, focal adhesion. Cytoplasm, cytoskeleton. Secreted.</p> <p>Recruited to cell-cell contacts in quiescent endothelial cells. Colocalizes with the actin cytoskeleton and at actin stress fibers during cell spreading. Recruited to the lower surface of migrating cells, especially the rear end of the cell. Proteolytic processing gives rise to a soluble extracellular domain that is secreted.</p>

图片



Specific activity of ab196080 was determined to be 5.2 pmol/min/μg



SDS-PAGE using 5 µg ab196080 (Lane 1). Lane 2 shows protein marker.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors