Recombinant human TGF beta 1 protein (Active) ab50036

57 References  1 Image

Product datasheet

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**描述**

**产品名称** 重组人TGF beta 1蛋白(Active)

**生物活性**

The ED$_{50}$, as determined by TGF-beta1’s ability to inhibit the mouse IL-4-dependent proliferation of mouse HT-2 cells, is ≤ 0.05 ng/ml), corresponding to a specific activity of ≥ 2 x 10$^7$ units/mg.

**纯度**

> 98% SDS-PAGE.

> 98% by HPLC analyses. Endotoxin Level: < 0.1 ng/µg of protein (< 1 EU/µg).

**内毒素水平**

< 1.000 Eu/µg

**表达系统**

HEK 293 cells

**Accession**

P01137

**蛋白长度**

Protein fragment

**无动物成分**

No

**性质**

Recombinant

**种属**

Human

**序列**

ALDTNYCFSS TEKNCCVRQL YIDFRKDLGW
KWIHEPKGYH ANFCLGPCPY IWSLDTQYSK
VLALYNQHNP GASAAPCCVP QALEPLPIVY
YVGRKPKEQ LSNMIVRSCK CS

**预测分子量**

25 kDa

**氨基酸**

279 to 390

**额外的序列信息**

TGF-beta1 is a 25.0 kDa protein with each subunit containing 112 aa, linked by a single disulfide bond. It is the mature protein after cleavage of the signal peptide and latency-associated peptide.

**技术指标**

Our Abpromise guarantee covers the use of ab50036 in the following tested applications.

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

**应用**

HPLC

Cell Culture

SDS-PAGE

Functional Studies

Western Blot
**Lyophilized**

**TGF-beta is secreted predominantly as latent complexes which are stored at the cell surface and in the extracellular matrix.**

The release of biologically active TGF-β isoform from a latent complex involves proteolytic processing of the complex and/or induction of conformational changes by proteins such as thrombospondin-1.

TGF-β1 is the most abundant isoform secreted by almost every cell type.

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<thead>
<tr>
<th>制备和贮存</th>
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<tbody>
<tr>
<td><strong>稳定性和存储</strong></td>
<td>Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. This product is an active protein and may elicit a biological response in vivo, handle with caution.</td>
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<tr>
<td><strong>复溶</strong></td>
<td>Centrifuge the vial prior to opening. Reconstitute in 10mM Citric Acid, pH3.0 to a concentration of 50 µg/ml (e.g. 5 µg/100µl). This solution can then be stored at 4°C to 8oC for up to 1 week or prepared for extended storage. It is recommended that further dilutions be made in PBS with 0.1% BSA and stored at -20oC for future use.</td>
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<tr>
<th>常规信息</th>
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<tr>
<td><strong>功能</strong></td>
<td>Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFB1 and have specific receptors for it. It positively and negatively regulates many other growth factors. It plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation in committed osteoblasts.</td>
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<td><strong>组织特异性</strong></td>
<td>Highly expressed in bone. Abundantly expressed in articular cartilage and chondrocytes and is increased in osteoarthritis (OA). Co-localizes with ASPN in chondrocytes within OA lesions of articular cartilage.</td>
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<tr>
<td><strong>疾病相关</strong></td>
<td>Defects in TGFB1 are the cause of Camurati-Engelmann disease (CE) [MIM:131300]; also known as progressive diaphyseal dysplasia 1 (DPD1). CE is an autosomal dominant disorder characterized by hyperostosis and sclerosis of the diaphyses of long bones. The disease typically presents in early childhood with pain, muscular weakness and waddling gait, and in some cases other features such as exophthalmos, facial paralysis, hearing difficulties and loss of vision.</td>
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<tr>
<td><strong>序列相似性</strong></td>
<td>Belongs to the TGF-beta family.</td>
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<td><strong>翻译后修饰</strong></td>
<td>Glycosylated. The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to mature TGF-beta-1 rendering it inactive.</td>
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<tr>
<td><strong>细胞定位</strong></td>
<td>Secreted &gt; extracellular space &gt; extracellular matrix.</td>
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**图片**
**Western blot - Recombinant human TGF beta 1 protein (Full length) (ab50036)**

**All lanes**: Anti-CTGF antibody [EPR20728] (ab209780) at 1/1000 dilution

**Lane 1**: NIH/3T3 (mouse embryonic fibroblast) starved for 18 hours, whole cell lysate

**Lane 2**: NIH/3T3 starved for 18 hours, then treated with 10 ng/ml transforming growth factor-ß (TGF-ß1, ab50036) and 50 µg/ml Heparin sodium salt for 24 hours, whole cell lysate

**Lane 3**: HepG2 (human hepatocellular carcinoma epithelial cell), whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Blocking/Dilution buffer and concentration**: 5% NFDM/TBST.

The level of CTGF expression can be induced by TGF beta treatment (PMID: 17786299).

CTGF is constitutively expressed in HepG2 cells (PMID: 15886528).

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

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