abcam

Product datasheet

Recombinant human TGF beta 1 protein (Active) ab50036

44 References 1 图像

描述

产品名称 重组人TGF beta 1蛋白(Active)

生物活性 The ED₅₀, as determined by TGF-beta1's ability to inhibit the mouse IL-4-dependent proliferation

of mouse HT-2 cells, is \leq 0.05 ng/ml), corresponding to a specific activity of \geq 2 x 10⁷ 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</td>

 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

YVGRKPKVEQ 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

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形式

Lyophilized

补充说明

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.

制备和贮存

稳定性和存储

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.

复溶

Centrifuge the vial prior to opening. Reconstitute in 10mM Citric Acid, pH3.0 to a concentration of $50 \mu g/ml$ (e.g. $5 \mu g/100 \mu l$). This solution can then be stored at 4oC 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.

常规信息

功能

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.

组织特异性

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.

疾病相关

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.

序列相似性

Belongs to the TGF-beta family.

翻译后修饰

Glycosylated.

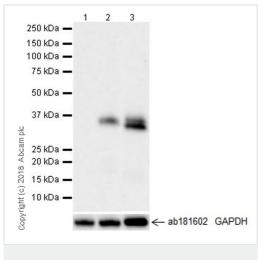
The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to

mature TGF-beta-1 rendering it inactive.

细胞定位

Secreted > extracellular space > extracellular matrix.

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 μ g/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 lgG H&L (HRP) (<u>ab97051</u>) 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).

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