Product datasheet

Anti-TGF beta 1 antibody ab92486

Overview

Product name: Anti-TGF beta 1 antibody
Description: Rabbit polyclonal to TGF beta 1
Host species: Rabbit
Specificity: Full length, inactive 44 kD TGFB1 is cleaved into mature TGFB1 (13 kD). TGFB1 also homodimerizes and heterodimerizes with TGFB2, so there is potential for multiple different band sizes in WB.

Tested applications: Suitable for: WB, IHC-FrFl, IHC-P, IHC-Fr, ICC/IF
Species reactivity: Reacts with: Mouse, Rat, Human, Pig
Positive control: WB: RAW 264.7 whole cell lysate (ab7187), Mouse 3T3 cell lysate. IHC-P: Mouse intestine tissue; human retina tissue.

General notes: Abcam recommended secondaries - Goat Anti-Rabbit HRP (ab205718) and Goat Anti-Rabbit Alexa Fluor® 488 (ab150077).
See other anti-rabbit secondary antibodies that can be used with this antibody.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer: pH: 7.20
Preservative: 0.01% Thimerosal (merthiolate)
Constituents: 0.5% BSA, 30% Glycerol, 0.15% EDTA, PBS
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab92486 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**Function**
Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFβ1 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.

**Tissue specificity**
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.

**Involvement in disease**
Defects in TGFβ1 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.

**Sequence similarities**
Belongs to the TGF-beta family.

**Post-translational modifications**
Glycosylated.

**Cellular localization**
Secreted > extracellular space > extracellular matrix.

---

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 0.5 - 4 µg/ml. Predicted molecular weight: 44 kDa. Can be blocked with Human TGF beta 1 peptide (ab231650). Full length, inactive 44 kD TGFβ1 is cleaved into mature TGFβ1 (13 kD). TGFβ1 also homodimerizes and heterodimerizes with TGFβ2, so there is potential for multiple different band sizes in WB.</td>
</tr>
<tr>
<td>IHC-FrFl</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 24647450</td>
</tr>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 10 - 20 µg/ml.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use a concentration of 10 - 20 µg/ml.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>1/100.</td>
</tr>
</tbody>
</table>

---

**Target**

**Function**
Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFβ1 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.

**Tissue specificity**
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.

**Involvement in disease**
Defects in TGFβ1 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.

**Sequence similarities**
Belongs to the TGF-beta family.

**Post-translational modifications**
Glycosylated.

**Cellular localization**
Secreted > extracellular space > extracellular matrix.

---

**Images**
Western blot of mouse 3T3 cell lysate with ab92486 at a concentration of 4 µg/ml.

ab92486 staining TGF beta 1 in Mouse intestine tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 5% BSA for 30 minutes at 20°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/100 in blocking buffer) for 24 hours at 4°C. An undiluted HRP-conjugated Human anti-rabbit polyclonal was used as the secondary antibody.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TGF beta 1 antibody (ab92486)

This image is courtesy of an Abreview submitted by Ms Andrea Dannullis

ab92486 staining TGF beta 1 in Human retina membrane by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).

Tissue was fixed with paraformaldehyde and blocked with 10% serum for 30 minutes at 20°C; antigen retrieval was by heat mediation. Samples were incubated with primary antibody (1/400 in PBS + 1% Triton X-100 + 2% goat serum) for 24 hours at 4°C. An HRP-conjugated Human polyclonal was used as the secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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.com/abpromise or contact our technical team.

Terms and conditions

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