**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 TGFß1 is cleaved into mature TGFß1 (13 kD). TGFß1 also homodimerizes and heterodimerizes with TGFß2, so there is potential for multiple different band sizes in WB.

ab92486 detects the mature secreted form of the protein at 13 kDa. Our internal testing data suggests that this does not detect the full length protein at 44kDa. As cell lysates are unsuitable for detection of the mature form, tissue lysates should be used when using this antibody.

**Tested applications** Suitable for: WB

**Species reactivity** Reacts with: Human, Recombinant fragment

**Immunogen** Synthetic peptide corresponding to Human TGF beta 1. Surrounding amino acid 374.

**Positive control** WB: Human spleen and kidney tissue lysates.

**General notes** This product is manufactured by BioVision, an Abcam company and was previously called 5559 Anti-TGF-ß1 Polyclonal Antibody. 5559-100 is the same size as the 100 µg size of ab92486.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

**Properties**

**Form** Liquid

**Storage instructions** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.

**Storage buffer** Preservative: 0.01% Thimerosal (merthiolate)  
Constituents: 0.5% BSA, 30% Glycerol (glycerin, glycerine), 0.15% EDTA, PBS

**Purity** Immunogen affinity purified
**Clonality**
Polyclonal

**Isotype**
IgG

**Applications**

**The Abpromise guarantee**
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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★☆ (4)</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 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.</td>
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**Target**

**Function**
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.

**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 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.

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

**Post-translational modifications**
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.

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

**Images**
All lanes: Anti-TGF beta 1 antibody (ab92486)

Lane 1: Human recombinant TGF-ß1 at 0.0005 µg
Lane 2: Human kidney tissue at 50 µg
Lane 3: Human spleen tissue at 50 µg

Predicted band size: 44 kDa

All lanes: Anti-TGF beta 1 antibody (ab92486) at 5 µg/ml

Lane 1: Human spleen tissue lysate
Lane 2: Human kidney tissue lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 44 kDa

Observed band size: 15 kDa

Lanes 1 - 2: Merged signal (red and green). Green - ab92486 observed at 15 kDa. Red - loading control ab8245 (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab92486 was shown to react with TGF beta 1 in western blot. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab92486 and ab8245 (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at 5 µg/ml and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000.
dilution for 1 hour at room temperature before imaging.

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

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