

### Anti-TGF beta 1 antibody [EPR18163] ab179695

KO 評価済 リコンビナント RabMAb

★★★★☆ 3 Abreviews 75 References 画像数 7

#### 製品の概要

|              |  |
|--------------|--|
| 製品名          | Anti-TGF beta 1 antibody [EPR18163]  |
| 製品の詳細        | Rabbit monoclonal [EPR18163] to TGF beta 1   |
| 由来種          | Rabbit   |
| 特異性          | This antibody recognizes the mature and cleaved forms of TGF-beta 1.   |
| アプリケーション     | 適用あり: WB   |
| 種交差性         | 交差種: Mouse, Rat, Human   |
| 免疫原          | Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.   |
| ポジティブ・コントロール | WB: L-929, RAW 264.7, HeLa, Wild-type A549, A549, SH-SY5Y and K562 whole cell lysates; Mouse serum; Mouse spleen lysate; Rat kidney and spleen lysates; Rat serum; Human kidney and spleen lysates; Recombinant protein fragment human TGF beta 1.   |
| 特記事項         | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> |

#### 製品の特性

|       |   |
|-------|---|
| 製品の状態 | Liquid  |
| 保存方法  | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| バッファー | Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA  |
| 精製度   | Protein A purified  |
| ポリ/モノ | モノクローナル   |
| クローン名 | EPR18163  |

## アプリケーション

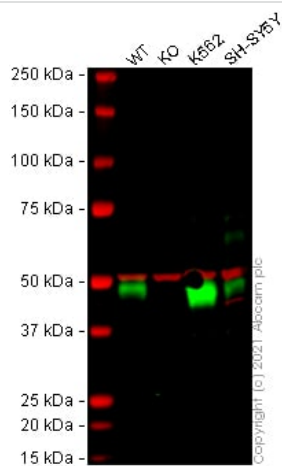
**The Abpromise guarantee** Abpromise保証は、次のテスト済みアプリケーションにおけるab179695の使用に適用されず  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

| アプリケーション | Abreviews | 特記事項   |
|----------|-----------|--|
| WB       | ★★★★☆ (3) | 1/1000. Detects a band of approximately 50, 12.5 kDa (predicted molecular weight: 44 kDa). |

## ターゲット情報

|              |   |
|--------------|---|
| <b>機能</b>    | 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.                                     |
| <b>組織特異性</b> | 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.  |
| <b>関連疾患</b>  | 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. |
| <b>配列類似性</b> | Belongs to the TGF-beta family.   |
| <b>翻訳後修飾</b> | Glycosylated.<br>The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to mature TGF-beta-1 rendering it inactive.   |
| <b>細胞内局在</b> | Secreted > extracellular space > extracellular matrix.  |

## 画像



Western blot - Anti-TGF beta 1 antibody  
[EPR18163] (ab179695)

**All lanes :** Anti-TGF beta 1 antibody [EPR18163] (ab179695) at 1/1000 dilution

**Lane 1 :** Wild-type A549 cell lysate

**Lane 2 :** TGFB1 knockout A549 cell lysate

**Lane 3 :** K562 cell lysate

**Lane 4 :** SH-SY5Y cell lysate

Lysates/proteins at 20 µg per lane.

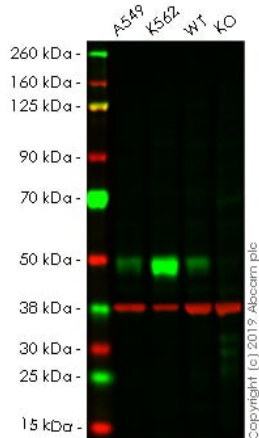
Performed under reducing conditions.

**Predicted band size:** 44 kDa

**Observed band size:** 48 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - ab179695 observed at 48 kDa. Red - loading control **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.

ab179695 was shown to react with TGF beta in wild-type A549 cells in Western blot with loss of signal observed in TGFB1 knockout cell line **ab269509** (TGFB1 knockout cell lysate **ab269671**). Wild-type A549 and TGFB1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab179695 and **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at a 1 in 1000 dilution 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 h at room temperature before imaging.



Western blot - Anti-TGF beta 1 antibody [EPR18163] (ab179695)

**All lanes :** Anti-TGF beta 1 antibody [EPR18163] (ab179695) at 1/1000 dilution

**Lane 1 :** A549 cell lysate

**Lane 2 :** K562 cell lysate

**Lane 3 :** Wild-type HeLa cell lysate

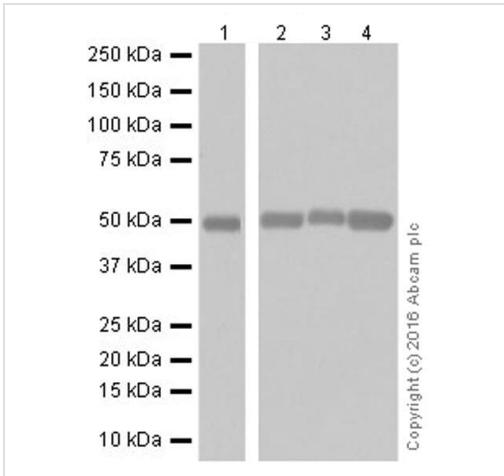
**Lane 4 :** TGF beta 1 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size:** 44 kDa

**Lanes 1 -4:** Merged signal (red and green). Green - ab179695 observed at 50 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab179695 was shown to react with TGF beta 1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab255439** (knockout cell lysate **ab263799**) was used. Wild-type and TGF beta 1 knockout samples were subjected to SDS-PAGE. ab179695 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-TGF beta 1 antibody [EPR18163] (ab179695)

**All lanes** : Anti-TGF beta 1 antibody [EPR18163] (ab179695) at 1/5000 dilution

**Lane 1** : L-929 (Mouse connective tissue fibroblast cell line) whole cell lysate

**Lane 2** : RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

**Lane 3** : A549 (Human lung carcinoma cell line) whole cell lysate

**Lane 4** : K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

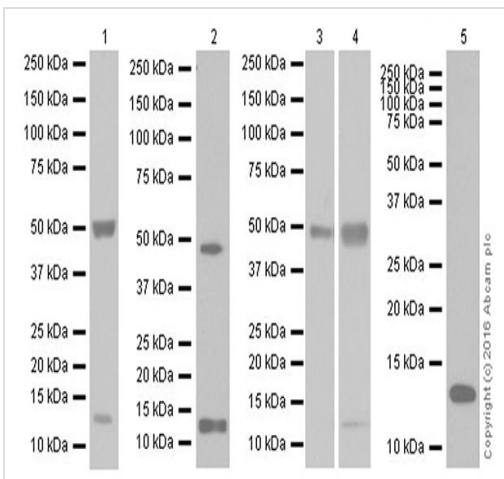
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

**Predicted band size:** 44 kDa

**Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFD/MTBST.

Exposure time: Lane 1: 3 minutes; Lane 2-4:30 seconds.



Western blot - Anti-TGF beta 1 antibody [EPR18163] (ab179695)

**Lane 1** : Anti-TGF beta 1 antibody [EPR18163] (ab179695) at 1/5000 dilution

**Lanes 2-5** : Anti-TGF beta 1 antibody [EPR18163] (ab179695) at 1/1000 dilution

**Lane 1** : Mouse serum

**Lane 2** : Mouse spleen lysate

**Lane 3** : Rat kidney lysate

**Lane 4** : Rat spleen lysate

**Lane 5** : Rat serum

Lysates/proteins at 10 µg per lane.

**Secondary**

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

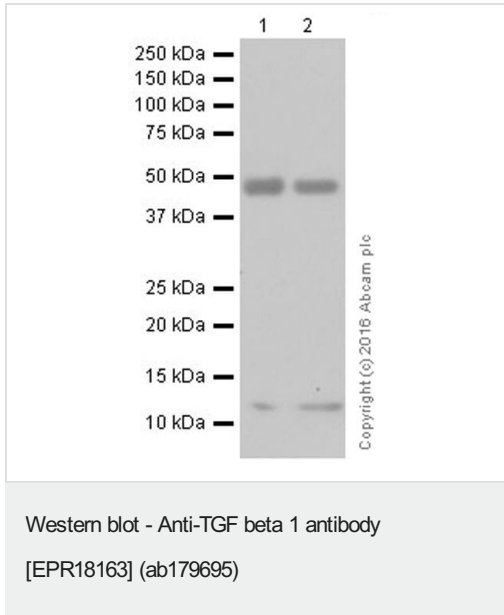
**Predicted band size:** 44 kDa

**Observed band size:** 12.5,50 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1/2/3/5: 3minutes; Lane 4: 30 seconds.

The expression profile observed is consistent with what has been described in the literature (PMID:18390240; PMID:12717387; PMID:2139036).



**All lanes :** Anti-TGF beta 1 antibody [EPR18163] (ab179695) at 1/1000 dilution

**Lane 1 :** Human kidney lysate

**Lane 2 :** Human spleen lysate

Lysates/proteins at 10 µg per lane.

#### **Secondary**

**All lanes :** Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/100000 dilution

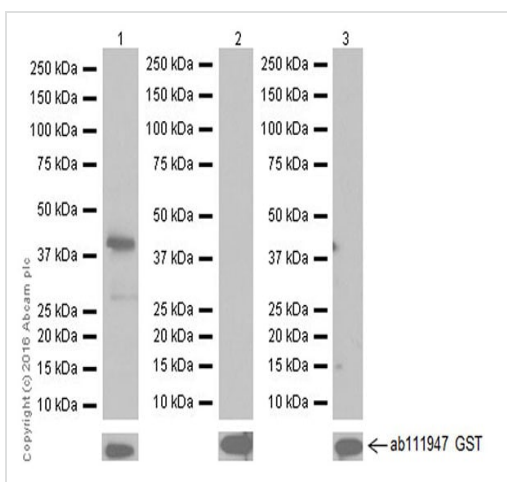
**Predicted band size:** 44 kDa

**Observed band size:** 12.5,50 kDa

**Exposure time:** 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

The expression profile observed is consistent with what has been described in the literature (PMID:18390240; PMID:12717387; PMID:2139036).



Western blot - Anti-TGF beta 1 antibody  
 [EPR18163] (ab179695)

**All lanes** : Anti-TGF beta 1 antibody [EPR18163] (ab179695) at 1/1000 dilution

**Lane 1** : Recombinant protein fragment human TGF beta 1

**Lane 2** : Recombinant protein fragment human TGF beta 2

**Lane 3** : Recombinant protein fragment human TGF beta 3

Lysates/proteins at 0.01 µg per lane.

#### Secondary

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





**Predicted band size:** 44 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: Lane 1: 1 second; Lane 2/3: 3 minutes.

Recombinant protein fragment human TGF beta 1 contains aa279-390 with a GST-tag. Recombinant protein fragment human TGF beta 2 contains aa303-414 with a GST-tag Recombinant protein fragment human TGF beta 3 contains aa301-412 with a GST-tag. These three fragment recombinant proteins were made in-house.

Why choose a recombinant antibody?

|   |   |
|---|---|
| <br><b>Research with confidence</b><br>Consistent and reproducible results | <br><b>Long-term and scalable supply</b><br>Recombinant technology |
| <br><b>Success from the first experiment</b><br>Confirmed specificity      | <br><b>Ethical standards compliant</b><br>Animal-free production   |

Anti-TGF beta 1 antibody [EPR18163] (ab179695)

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