Basic Information

- **Catalog Number:** 18978-1-AP
- **Size:** 150 μl
- **Concentration:** 220 μg/ml by Bradford method using BSA as the standard.
- **Source:** Rabbit
- **Isotype:** IgG
- **GenBank Accession Number:** NM_000660
- **GeneID (NCBI):** 7060
- **Full Name:** transforming growth factor, beta 1
- **Calculated MW:** 44 kDa
- **Observed MW:** 25 kDa

Purification Method:
- Antigen affinity purification

Recommended Dilutions:
- WB: 1:200-1:1000
- IHC: 1:50-1:500

Applications

- **Tested Applications:** IHC, WB, ELISA
- **Cited Applications:** Cell treatment, IF, IHC, WB
- **Species Specificity:** human, mouse, rat
- **Cited Species:** human, rat, sheep, mouse, pig, canine

**Note-IHC:** suggested antigen retrieval with **TE buffer pH 9.0;** (*) Alternatively, antigen retrieval may be performed with **citrate buffer pH 6.0**

Background Information

TGFB, also named as LAP and TGFβ1, is a multifunctional peptide that controls proliferation, differentiation, and other functions in many cell types. TGFB acts synergistically with TGFA in inducing transformation. It also acts as a negative autocrine growth factor. Dysregulation of TGFB activation and signaling may result in apoptosis. Many cells synthesize TGFB and almost all of them have specific receptors for it. TGFB 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. It is highly expressed in bone. Mutation of TGFB are the cause of Camurati-Engelmann disease (CED) which known as progressive diaphyseal dysplasia 1 (DPD1). 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 (12, 25, 45 to 65 kDa).

Notable Publications

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<th>Author</th>
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<tr>
<td>Fang Dou</td>
<td>30215298</td>
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<td>Xin Liang</td>
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<td>Haoyu Ruan</td>
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Storage

- Store at -20°C. Stable for one year after shipment.
- Storage Buffer: PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
- Aliquoting is unnecessary for -20°C storage

*** 20μl sizes contain 0.1% BSA***
MCF-7 cells were subjected to SDS PAGE followed by western blot with 18978-1-AP (TGF-beta 1 antibody at dilution of 1:300) incubated at room temperature for 1.5 hours.