For Research Use Only

# TGF Beta 1 Polyclonal antibody

Catalog Number:18978-1-AP 109 Publications

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## Basic Information

Catalog Number:
18978-1-AP

Size:
150ul , Concentration: 220 μg/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
NM_000660

GeneID (NCBI):
7040

UNIPROT ID:
P01137

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:
WB, IHC, ELISA

Cited Applications:
WB, IHC, IF, Cell treatment

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, pig, canine, monkey, bovine, sheep

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

Positive Controls:

WB : MCF-7 cells,

IHC : human lung cancer tissue,

## Background Information

TGFB, also named as LAP and TGFB1, 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

| Author | Pubmed ID | Journal | Application |
|---|---|---|---|
| Fang Dou | 30215298 | Rejuvenation Res | WB |
| Xin Liang | 28850927 | Biomed Pharmacother | WB |
| Haoyu Ruan | 27581744 | Sci Rep | IHC |

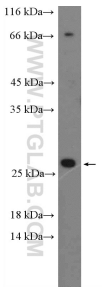
## Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

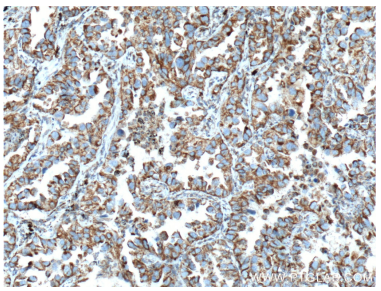
***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

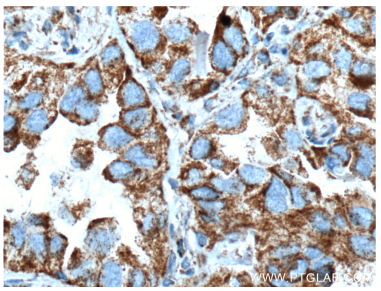
## Selected Validation Data




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.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 18978-1-AP (TGF-beta 1 antibody at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 18978-1-AP (TGF-beta 1 antibody at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).