

## Anti-TGF beta 1/TGFB1 Antibody

Catalog Number: A00019-2

### About TGFB1

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate a latency-associated peptide (LAP) and a mature peptide, and is found in either a latent form composed of a mature peptide homodimer, a LAP homodimer, and a latent TGF-beta binding protein, or in an active form consisting solely of the mature peptide homodimer. The mature peptide may also form heterodimers with other TGFB family members. This encoded protein regulates cell proliferation, differentiation and growth, and can modulate expression and activation of other growth factors including interferon gamma and tumor necrosis factor alpha. This gene is frequently upregulated in tumor cells, and mutations in this gene result in Camurati-Engelmann disease.

### Overview

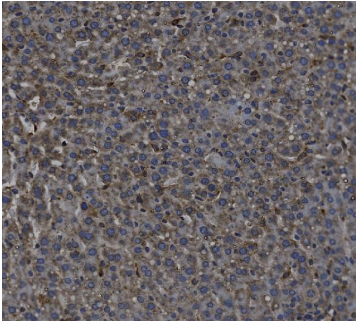
Product Name	Anti-TGF beta 1/TGFB1 Antibody
Reactive Species	Rat
Description	Boster Bio Anti-TGF beta 1/TGFB1 Antibody catalog # A00019-2. Tested in IHC applications. This antibody reacts with Rat.
Application	IHC
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P01137

### Technical Details

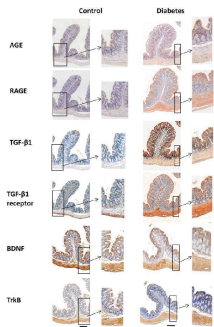
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human TGF beta 1/TGFB1, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Rat

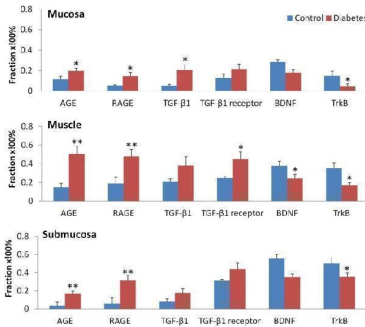
## Anti-TGF beta 1/TGFB1 Antibody (A00019-2) Images



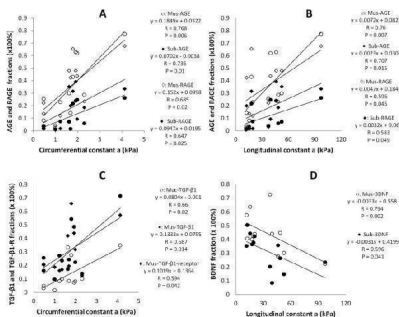
IHC analysis of TGF Beta 1/TGFB1 using anti-TGF Beta 1/TGFB1 antibody (A00019-2). TGF Beta 1/TGFB1 was detected in a paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TGF Beta 1/TGFB1 Antibody (A00019-2) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



The representative samples of immunohistochemical staining for AGE, RAGE, TGF-beta1, TGF- beta1 receptor, BDNF and TrkB in the colon wall of two groups. The microscopy with high magnification have been inserted in each single histological photo (arrow) in order to display the localization of markers. The staining of all proteins was stronger in the muscle layer than other layers. In the different layers, the staining of AGE, RAGE, TGF-beta1 and TGF- beta1 receptor was stronger whereas the staining of BDNF and TrkB was weaker in the Diabetes group than in Control group. Bar = 100 um. Index in PubMed under a CC BY license. PMID: 29930382

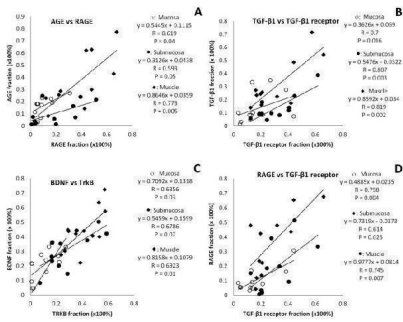


The fraction of AGE, RAGE, TGF-beta1, TGF- beta1 receptor, BDNF and TrkB in the different layers of the colon between two groups. In the different layers, the fraction of AGE, RAGE, TGF-beta1 and TGF- beta1 receptor was bigger whereas the fraction of BDNF and TrkB was smaller in the Diabetes group than in Control group. Compared with Control group: \*P<0.05, \*\*P<0.01. Index in PubMed under a CC BY license. PMID: 29930382



( A ) Correlation between AGE and RAGE in muscle layer and submucosa layer with circumferential constant a; ( B ) Correlation between AGE and RAGE in muscle layer and submucosa layer with longitudinal constant a; ( C ) Correlation between TGF-beta1 and TGF-beta1 receptor in mucosa layer and TGF-beta1 muscle layer with circumferential and longitudinal material constant a; ( D ) Correlation between BDNF in muscle and submucosa layers with longitudinal constant a. Index in PubMed under a CC BY license. PMID: 29930382

( A ) Correlation between AGE and RAGE in different layers; ( B ) Correlation between TGF-beta1 and TGF-beta1receptor in different layers; ( C ) Correlation between BDNF and TrkB in



different layers; ( D ) Correlation between RAGE and TGF-beta1receptor in different layers. Index in PubMed under a CC BY license. PMID: 29930382

## 18 Publications Citing This Product

1. PubMed ID: PMID:25337218, Effects of hydroxysafflor yellow A on proliferation and collagen synthesis of rat vascular adventitial fibroblasts induced by angiotensin II
2. PubMed ID: 10.3892/mmr.2016.5735, Mechanism of tacrolimus-induced chronic renal fibrosis following transplantation is regulated by ox-LDL and its receptor, LOX-1
3. PubMed ID: 10.3109/10799893.2015.1016578, Effect of the TLR2/MyD88/NF-kappaB axis on corneal allograft rejection after penetrating keratoplasty

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