

PRODUCT DATA SHEET

Bioworld Technology,Inc.

TGF beta 2 monoclonal antibody

Catalog: MB67044 Host: Mouse Reactivity: Human

BackGround:

Transforming growth factor-β (TGF-β) superfamily members are critical regulators of cell proliferation and differentiation, developmental patterning and morphogenesis, and disease pathogenesis. TGF-β elicits signaling through three cell surface receptors: type I (RI), type II (RII), and type III (RIII). Type I and type II receptors are serine/threonine kinases that form a heteromeric complex. In response to ligand binding, the type II receptors form a stable complex with the type I receptors allowing phosphorylation and activation of type I receptor kinases . The type III receptor, also known as betaglycan, is a transmembrane proteoglycan with a large extracellular domain that binds TGF-B with high affinity but lacks a cytoplasmic signaling domain. Expression of the type III receptor can regulate TGF-β signaling through presentation of the ligand to the signaling complex. The only known direct TGF-β signaling effectors are the Smad family proteins, which transduce signals from the cell surface directly to the nucleus to regulate target gene transcription .Three isoforms of TGF-β, designated TGF-β1, TGF-β2 and TGF-β3, are encoded by distinct genes and are expressed in a tissue specific manner. Each isoform is synthesized as a larger precursor protein containing a propeptide region that is removed prior to secretion. Mature TGF-β contains two polypeptides linked by disulfide bonds to form a protein of approximately 25 kDa.

Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 48 kDa

Swiss-Prot:

P61812

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/ICC (1/10 - 1/50)

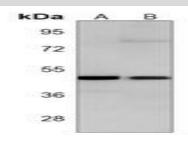
Storage&Stability:

Store at $4 \,\mathrm{C}$ short term. Aliquot and store at $-20 \,\mathrm{C}$ long term. Avoid freeze-thaw cycles.

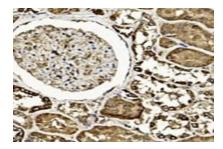
Specificity:

Recognizes endogenous levels of TGF beta 2 protein.

DATA:



Western blot analysis of TGF beta 2 expression in 293 (A), K562 (B) whole cell lysates.



Immunohistochemical analysis of TGF beta 2 staining in human kidney formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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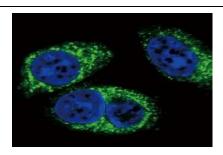
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Immunofluorescent analysis of TGF beta 2 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated

secondary antibody (green) in PBS at room temperature in the dark.

DAPI was used to stain the cell nuclei (blue).

Note:

For research use only, not for use in diagnostic procedure.

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