

TGFb1 Ab

Cat.#: BF0334
Size: 50ul,100ul,200ul

Concn.: 1mg/ml
Source: Mouse

Mol.Wt.: 44.3kDa
Clonality: Monoclonal

Application: ELISA 1/10000, WB 1/500 - 1/2000, IHC 1/200 - 1/1000, FCM 1/200 - 1/400

Reactivity: Human

Purification: Affinity-chromatography.

Specificity: TGFb1 Ab detects endogenous levels of total TGFb1.

Immunogen: Purified recombinant fragment of human TGFb1 expressed in E. Coli.

Uniprot: P01137

Description: This gene encodes a member of the transforming growth factor beta (TGFB) family of cytokines, which are multifunctional peptides that regulate proliferation, differentiation, adhesion, migration, and other functions in many cell types. Many cells have TGFB receptors, and the protein positively and negatively regulates many other growth factors. The secreted protein is cleaved into a latency-associated peptide (LAP) and a mature TGFb1 peptide, and is found in either a latent form composed of a TGFb1 homodimer, a LAP homodimer, and a latent TGFb1-binding protein, or in an active form composed of a TGFb1 homodimer. The mature peptide may also form heterodimers with other TGFB family members. This gene is frequently upregulated in tumor cells, and mutations in this gene result in Camurati-Engelmann disease

Subcellular Location: Secreted > extracellular space > extracellular matrix.

Tissue Specificity: Highly expressed in bone. Abundantly expressed in articular cartilage and chondrocytes and is increased in osteoarthritis (OA). Colocalizes with ASPN in chondrocytes within OA lesions of articular cartilage.

Similarity: The 'straitjacket' and 'arm' domains encircle the growth factor monomers and are fastened together by strong bonding between Lys-56 and Tyr-103/Tyr-104. Activation of TGF-beta1 requires the binding of integrin alpha-V to an RGD sequence in the prodomain and exertion of force on this domain, which is held in the extracellular matrix by latent TGF-beta binding proteins. The sheer physical force unfastens the straitjacket and releases the active growth factor dimer (By similarity).Belongs to the TGF-beta family.

Storage Condition and Buffer:

Mouse IgG1 in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at -20 °C. Stable for 12 months from date of receipt.

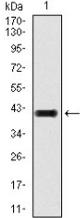


Figure 1: Western blot analysis using TGFb1 mAb against human TGFb1 recombinant protein. (Expected MW is 41 kDa)

IMPORTANT: For western blot, incubate membrane with diluted primary Ab in 5% w/v milk, 1X TBS, 0.1% Tween@20 at 4°C with gentle shaking, overnight.

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