

Product datasheet

Anti-TGF beta 1 antibody [2E6] ab647

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Overview

Product name	Anti-TGF beta 1 antibody [2E6]
Description	Mouse monoclonal [2E6] to TGF beta 1
Host species	Mouse
Specificity	Western blotting demonstrated that this antibody reacts with the dimeric (25 kDa) and monomeric (12.5 kDa.) forms of TGF-beta under both non-reducing and reducing conditions respectively. TGFB1 also homodimerizes and heterodimerizes with TGFB2, so there is potential for multiple different band sizes in WB. This antibody recognizes both human platelet-derived and recombinant TGF-beta in ELISA.
Tested applications	Suitable for: Neutralising, WB, ELISA Unsuitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Full length native protein (purified) corresponding to Human TGF beta 1. TGF beta 1 from human platelets.
Positive control	WB: recombinant protein
General notes	Abcam is committed to meeting high standards of ethical manufacturing and as such, we will be discontinuing this product, which has been generated by the ascites method, within the next year. We are sorry for any inconvenience this may cause. If you would like help finding an alternative product, please do not hesitate to contact our scientific support team.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.00 Constituent: 0.0268% PBS
Purity	Ascites
Purification notes	Purified from ascites.
Clonality	Monoclonal
Clone number	2E6
Myeloma	Sp2/0-Ag14

Isotype	IgG1
Light chain type	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab647** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Neutralising		Use at an assay dependent concentration. PubMed: 17574548
WB	★★★★☆	Use a concentration of 1 - 10 µg/ml. 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. This antibody, used at this concentration will allow visualization of 100 ng/lane of TGF-beta.
ELISA		Use at an assay dependent concentration.

Application notes Is unsuitable for IHC-P.

Target

Function	Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFB1 and have specific receptors for it. It 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.
Tissue specificity	Highly expressed in bone. Abundantly expressed in articular cartilage and chondrocytes and is increased in osteoarthritis (OA). Co-localizes with ASPN in chondrocytes within OA lesions of articular cartilage.
Involvement in disease	Defects in TGFB1 are the cause of Camurati-Engelmann disease (CE) [MIM:131300]; also known as progressive diaphyseal dysplasia 1 (DPD1). CE is an autosomal dominant disorder characterized by hyperostosis and sclerosis of the diaphyses of long bones. The disease typically presents in early childhood with pain, muscular weakness and waddling gait, and in some cases other features such as exophthalmos, facial paralysis, hearing difficulties and loss of vision.
Sequence similarities	Belongs to the TGF-beta family.
Post-translational modifications	Glycosylated. The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to mature TGF-beta-1 rendering it inactive.
Cellular localization	Secreted > extracellular space > extracellular matrix.

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