**Overview**

**Product name**  
Human TGF beta 1 peptide

**Description**

**Nature**  
Synthetic

**Amino Acid Sequence**  
Human

**Species**  
Human

**Specifications**

Our [Abpromise guarantee](#) covers the use of ab231650 in the following tested applications. 

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

**Applications**  
Blocking - Blocking peptide for Anti-TGF beta 1 antibody (ab92486)

**Form**  
Liquid

**Additional notes**  
Blocking peptide for ab92486.

**Preparation and Storage**

**Stability and Storage**  
Shipped at 4°C. Store at -20°C.

pH: 7.2

Preservative: 0.02% Thimerosal (merthiolate)

Constituents: 50% Glycerol, 1% BSA

**General Info**

**Function**  
Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFβ1 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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