

Datasheet for ABIN2667582
TGFB2 Protein (AA 303-414)



[Go to Product page](#)

1 Image

Overview

Quantity:	5 µg
Target:	TGFB2
Protein Characteristics:	AA 303-414
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Flow Cytometry (FACS)

Product Details

Purity:	>98 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 0.01 ng per µg cytokine as determined by the LAL method.

Target Details

Target:	TGFB2
Alternative Name:	TGF-Beta2 (TGFB2 Products)
Background:	Human TGF-β2 consists of two disulfide-linked, identical subunits, and displays 71.4 % sequence homology with TGF- β1. TGF-β2 is synthesized in cells as a 442 amino acid. Furin cleaves the protein, yielding an N-terminal cleavage product which corresponds to latency-associated peptide (LAP), and the 25 kD C-terminal portion of the precursor constitutes the

Target Details

mature TGF- β 2. TGF- β activators can release TGF- β from LAP. These activators include proteases that degrade LAP, thrombospondin-1, reactive oxygen species, and integrins avb6 and avb8. TGF- β 2 is the predominant form of TGF- β in ocular tissues, and elevated levels of TGF- β 2 have been found in the aqueous humor of patients with primary open-angle glaucoma (POAG), a major cause of blindness worldwide. There is an accumulation of extracellular matrix (ECM) in the trabecular meshwork (TM) of glaucoma patients, and TGF- β 2 seems to be responsible for this ECM increase. It has been identified that bone morphogenetic protein-4 and 7 (BMP4, BMP7) are potent antagonists of the fibrogenic effects of TGF- β 2 on human TM cells. Smad7 seems to participate in the antagonistic effect of BMP7 on TGF- β 2 signaling.

Molecular Weight: The 112 amino acid recombinant protein has a predicted molecular mass of approximately 12.7 kDa. The DTT-reduced protein migrates at approximately 14 kDa and non-reduced protein migrates at 28-30 kDa by SDS-PAGE. The N-terminal amino acid is Alanine.

Pathways: [Cell-Cell Junction Organization](#), [Production of Molecular Mediator of Immune Response](#), [Protein targeting to Nucleus](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Comment: Biological activity: TGF- β 2 inhibits the proliferation of mouse HT-2 cells induced by IL-4. ED 50 = 1 - 4 ng/ml, corresponding to a specific activity of 0.25 - 1.0 x 10⁶ units/mg.

Restrictions: For Research Use only

Handling

Format: Liquid

Reconstitution: For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored from -20 °C to -70 °C. Stock solutions can also be prepared at 50-100 µg/mL in sterile buffer (PBS, HPBS, DPBS, or EBSS) containing carrier protein such as 0.2-1 % BSA or HSA and stored in working aliquots at -20 °C to -70 °C.

Buffer: 0.22 µm filtered protein solution is in 20 % Acetonitrile, 0.1 % TFA (Trifluoroacetic acid).

Handling Advice: Avoid repeated freeze/thaw cycles.

Storage: -20 °C

Storage Comment: Unopened vial can be stored between 2°C and 8°C for one month, at -20°C for six months, or at -70°C for one year.

Flow Cytometry

Image 1.

