

## Datasheet for ABIN2667582

## **TGFB2 Protein (AA 303-414)**

# Image



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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- $\beta$ 1. TGF- $\beta$ 2 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	

	mature TGF-β2. 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- $\beta$ 2 is the predominant form of TGF- $\beta$ in ocular tissues, and elevated levels of
	TGF-β2 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- $\beta 2$ 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- $\beta$ 2 on human TM cells.
	Smad7 seems to participate in the antagonistic effect of BMP7 on TGF-β2 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

Optimal working dilution should be determined by the investigator.

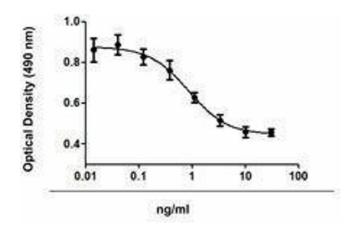
Biological activity: TGF- $\beta$ 2 inhibits the proliferation of mouse HT-2 cells induced by IL-4. ED 50 =

## **Application Details**

Application Notes:

Comment:

	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 $\mu$ g/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.