

Recombinant Human TGFB3 Protein

Cat. No. TGFB3-38H Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant human TGF- β 3 protein without tag was expressed in E. coli.
Animal-free (AOF) and carrier protein-free.
Mass spectrometry: single species with expected mass.
Recovery from stock vial: >95%

Species Human

Source E.coli

Description

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preprotein is proteolytically processed to generate a latency-associated peptide (LAP) and a mature peptide, and is found in either a latent form composed of a mature peptide homodimer, a LAP homodimer, and a latent TGF-beta binding protein, or in an active form consisting solely of the mature peptide homodimer. The mature peptide may also form heterodimers with other TGF-beta family members. This protein is involved in embryogenesis and cell differentiation, and may play a role in wound healing. Mutations in this gene are a cause of aortic aneurysms and dissections, as well as familial arrhythmogenic right ventricular dysplasia 1.

Molecular Mass 12.7 kDa monomer, 25.4 kDa dimer

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Endotoxin	<0.005 EU/μg protein (below level of detection)
Applications	Chemically defined media for organoid culture
Storage	Resuspend in 10mM HCl (Reconstitution solution A) at >100 μg/mL, prepare single use aliquots, add carrier protein if desired and store frozen at -20 or -80 centigrade
Storage Buffer	Lyophilized from acetonitrile, TFA

GENE INFORMATION

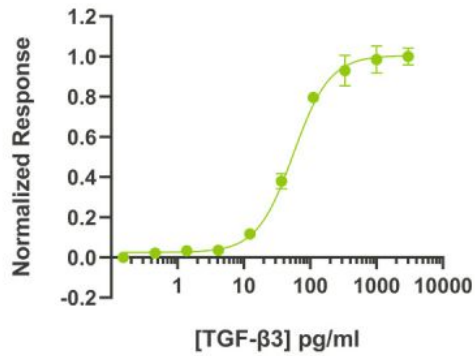
Gene Name	TGFB3 transforming growth factor beta 3 [Homo sapiens (human)]
Official Symbol	TGFB3
Synonyms	TGFB3; transforming growth factor beta 3; ARVD; LDS5; RNHF; ARVD1; TGF-beta3; transforming growth factor beta-3 proprotein; prepro-transforming growth factor beta-3
Gene ID	7043
mRNA Refseq	NM_001329938
Protein Refseq	NP_001316867
MIM	190230
UniProt ID	P10600

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Bioactivity



TGF-β3 activity is determined using a TGF-β3 responsive firefly luciferase reporter in HEK293T cells. EC50 = 50 pg/ml.

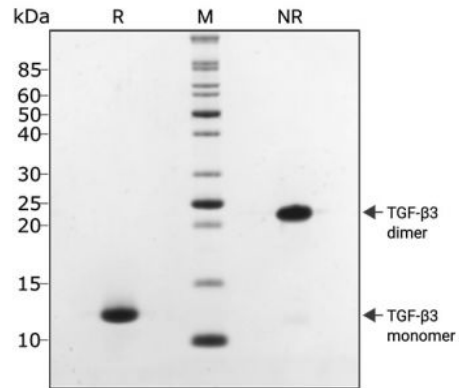
Bioactivity is determined using a TGF-β3 responsive firefly luciferase reporter in HEK293T cells. Cells are treated with a serial dilution of TGF-β3 for 6 hours. Firefly luciferase activity is measured and normalised to the control Renilla luciferase activity.

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Purity



TGF- β 3 migrates as a single band at 25 kDa in non-reducing conditions and 13 kDa upon reduction (R). No contaminating protein bands are visible. Purified recombinant protein was resolved using 15% w/v SDS-PAGE in reduced and non-reduced conditions and stained with Coomassie Brilliant Blue R250.

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