

Product datasheet for RC214987

TGF beta 3 (TGFB3) (NM_003239) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta 3 (TGFB3) (NM_003239) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TGF beta 3
Synonyms:	ARVD; ARVD1; LDS5; RNHF; TGF-beta3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214987 representing NM_003239 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGATGCACTTGCAAAGGGCTCTGGTGGTCTGGCCCTGCTGAACTTTGCCACGGTCAGCCTCTCTC
TGTCCACTTGACCACCTTGACTTCGGCCACATCAAGAAGAAGAGGGTGAAGCCATTAGGGGACAGAT
CTTGAGCAAGCTCAGGCTCACCAGCCCCCTGAGCCAACGGTGATGACCCACGTCCCCTATCAGGTCCTG
GCCCTTACAACAGCACCCGGGAGCTGCTGGAGGAGATGCATGGGAGAGGGAGGAAGGCTGCACCCAGG
AAAACACCGAGTCGGAATACTATGCCAAAGAAATCCATAAATTCGACATGATCCAGGGCTGGCGGAGCA
CAACGAACTGGCTGTCTGTCTAAAGGAATTACCTCCAAGTTTTCCGCTTCAATGTGTCCTCAGTGGAG
AAAAATAGAACCAACCTATTCCGAGCAGAATTCGGGTCTTGGGGTGCCCAACCCAGCTTAAGCGGA
ATGAGCAGAGGATCGAGCTCTCCAGATCCTTCGGCCAGATGAGCACATTGCCAAACAGCGCTATATCGG
TGGCAAGAATCTGCCACACGGGCACTGCCGAGTGGCTGTCTTTGATGTCACTGACACTGTGCGTGAG
TGGCTGTTGAGAAGAGAGTCCAACCTTAGGTCTAGAAATCAGCATTCACTGTCCATGTACACCTTTCAGC
CCAATGGAGATATCCTGGAAAACATTACGAGGTGATGGAAATCAAATTCAAAGGCGTGGACAATGAGGA
TGACCATGGCCGTGGAGATCTGGGGCGCCTCAAGAAGCAGAAGGATCACCACAACCCTCATCTAATCCTC
ATGATGATTCCTCCGCAACTTGGAGGAGAAGTCTGTGTGCGCCCTCTACATTGACTTCGACAGGA
CCAATTACTGCTCCGCAACTTGGAGGAGAAGTCTGTGTGCGCCCTCTACATTGACTTCGACAGGA
TCTGGGCTGGAAGTGGTCCATGAACCTAAGGGTACTATGCCAACTTCTGCTCAGGCCCTTGCCATAC
CTCCGAGTGCAGACACAACCCACAGCAGGCTGCTGGACTGTACAACCTCTGAACCTGAAGCATCTG
CCTCGCTTGTGCTGCTGCCCCAGGACCTGGAGCCCTGACCATCCTGTACTATGTTGGGAGGACCCCAA
AGTGGAGCAGCTCTCCAACATGGTGGTGAAGTCTTGTAAATGTAGC

ACGGTACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC214987 representing NM_003239
Red=Cloning site Green=Tags(s)

MKMH LQRALVVLALLNFATVLSLSLSTCTLDFGH IKKKRVEAIRGQILSKLRLTSPPEPTVMTHVPYQVL
 ALYNSTRELLEEMHGEREEGCTQENTESEYYAKEIHKFDMIQGLAEHNELAVCPKGITSKVFRFNVSVE
 KNRTNLFRAEFRVLRVNPSSKRNEQRIELFQILRPDEHIAKQRYIGGNLPTRGTAEWLSFDVTDTVRE
 WLLRRRESNLGLEISIHCPCHTFQPNGDILENIHEVMEIKFKGVDNEDDHGRGDLGRLKKQKDHHPHLIL
 MMIPPHRLDNPQGQQRKKRALDTNYCFRNL EENCCVRPLYIDFRQDLGWKWWHEPKGYANFCSGPCPY
 LRSADTTHTVTLGLYNTLNPEASASPCCVPQDLEPLTILYYVGRTPKVEQLSNMVMKSKCS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6106_h06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_003239

ORF Size: 1236 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_003239.5](#)

RefSeq Size: 2574 bp

RefSeq ORF: 1239 bp

Locus ID: 7043

UniProt ID: [P10600](#)

Cytogenetics: 14q24.3

Domains: TGFb_propeptide, TGF-beta

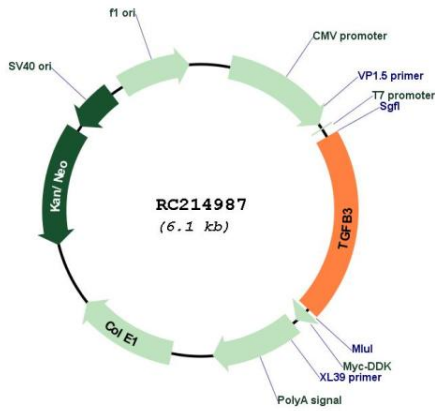
Protein Families: Druggable Genome, Secreted Protein, Transmembrane

Protein Pathways: Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Cytokine-cytokine receptor interaction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway, Pancreatic cancer, Pathways in cancer, Renal cell carcinoma, TGF-beta signaling pathway

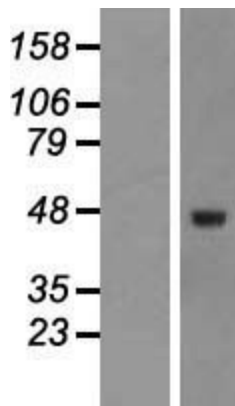
MW: 47.33 kDa

Gene Summary: 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 preproprotein 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. [provided by RefSeq, Aug 2016]

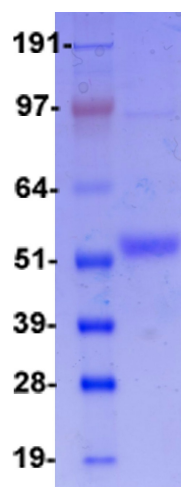
Product images:



Circular map for RC214987



Western blot validation of overexpression lysate (Cat# [LY418815]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214987 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TGFB3 protein (Cat# [TP314987]). The protein was produced from HEK293T cells transfected with TGFB3 cDNA clone (Cat# RC214987) using MegaTran 2.0 (Cat# [TT210002]).