OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC227984

TGF beta 2 (TGFB2) (NM_001135599) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta 2 (TGFB2) (NM_001135599) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TGF beta 2
Synonyms:	G-TSF; LDS4; TGF-beta2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC227984 representing NM_001135599
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCACTACTGTGTGCTGAGCGCTTTTCTGATCCTGCATCTGGTCACGGTCGCGCTCAGCCTGTCTACCT
GCAGCACACTCGATATGGACCAGTTCATGCGCAAGAGGATCGAGGCGATCCGCGGGCAGATCCTGAGCAA
GCTGAAGCTCACCAGTCCCCCAGAAGACTATCCTGAGCCCGAGGAAGTCCCCCCGGAGGTGATTTCCATC
TACAACAGCACCAGGGACTTGCTCCAGGAGAAGGCGAGCCGGAGGGCGGCCGCCTGCGAGCGCGAGAGGA
GCGACGAAGAGTACTACGCCAAGGAGGTTTACAAAATAGACATGCCGCCCTTCTTCCCCTCCGAAACTGT
CTGCCCAGTTGTTACAACACCCTCTGGCTCAGTGGGCAGCTTGTGCTCCAGACAGTCCCAGGTGCTCTGT
GGGTACCTTGATGCCATCCCGCCCACTTTCTACAGACCCTACTTCAGAATTGTTCGATTTGACGTCTCAG
CAATGGAGAAGAATGCTTCCAATTTGGTGAAAGCAGAGTTCAGAGTCTTTCGTTTGCAGAACCCAAAAGC
CAGAGTGCCTGAACAACGGATTGAGCTATATCAGATTCTCAAGTCCAAAGATTTAACATCTCCAACCCAG
CGCTACATCGACAGCAAAGTTGTGAAAACAAGAGCAGAAGGCGAATGGCTCTCCTTCGATGTAACTGATG
CTGTTCATGAATGGCTTCACCATAAAGACAGGAACCTGGGATTTAAAATAAGCTTACACTGTCCCTGCTG
CACTTTTGTACCATCTAATAATTACATCATCCCAAATAAAAGTGAAGAACTAGAAGCAAGATTTGCAGGT
ATTGATGGCACCTCCACATATACCAGTGGTGATCAGAAAACTATAAAGTCCACTAGGAAAAAAAACAGTG
GGAAGACCCCACATCTCCTGCTAATGTTATTGCCCTCCTACAGACTTGAGTCACAACAGACCAACCGGCG
GAAGAAGCGTGCTTTGGATGCGGCCTATTGCTTTAGAAATGTGCAGGATAATTGCTGCCTACGTCCACTT
TACATTGATTTCAAGAGGGATCTAGGGTGGAAATGGATACACGAACCCAAAGGGTACAATGCCAACTTCT
GTGCTGGAGCATGCCCGTATTTATGGAGTTCAGACACTCAGCACAGCAGGGTCCTGAGCTTATATAATAC
CATAAATCCAGAAGCATCTGCTTCTCCTTGCTGCGTGTCCCAAGATTTAGAACCTCTAACCATTCTCTAC
TACATTGGCAAAACACCCAAGATTGAACAGCTTTCTAATATGATTGTAAAGTCTTGCAAATGCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227984 representing NM_001135599
Red=Cloning site Green=Tags(s)

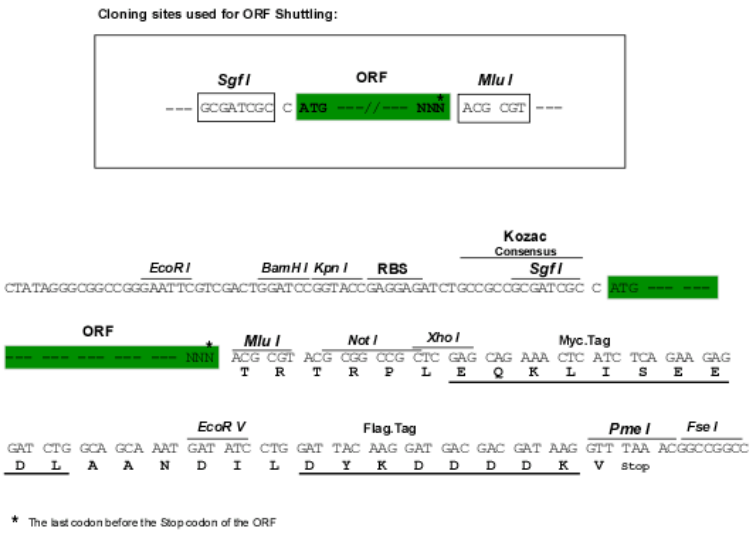
MHYCVLSAFLILHLVTVALSLSTCSTLDMDQFMRKRIEAIRGQILSKLKLTSPPEDYPEPEEVPPEVISI
YNSTRDLLQEKASRRAAACERERSDEEYYAKEVYKIDMPPFFPSETVCPVVTTPSGSVGSLCSRQSQVLC
GYLDAIPPTFYRPYFRIVRFDVSAMEKNASNLVKAEFRVFRLQNPKARVPEQRIELYQILKSKDLTSPTQ
RYIDSKVVKTRAEGEWLSFDVTDAVHEWLHHKDRNLGFKISLHCPCCTFVPSNNYIIPNKSEELEARFAG
IDGTSTYTSGDQKTIKSTRKKNSGKTPHLLLMLLPSYRLESQQTNRRKKRALDAAYCFRNVQDNCCLRPL
YIDFKRDLGWKWIHEPKGYNANFCAGACPYLWSSDTQHSRVLSLYNTINPEASASPCCVSQDLEPLTILY
YIGKTPKIEQLSNMIVKSCKCS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8060_c04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001135599

ORF Size: 1326 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

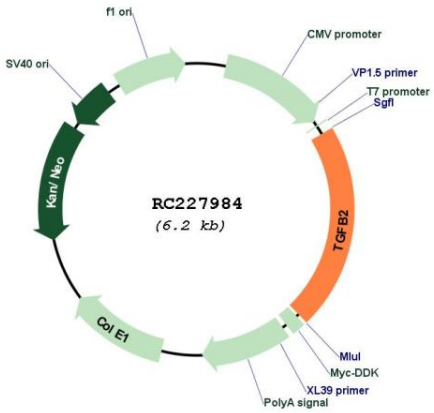
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

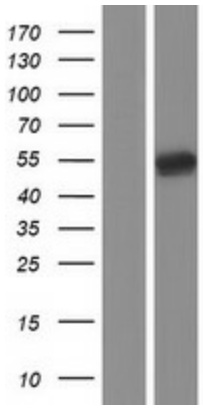
Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001135599.3
RefSeq ORF:	1329 bp
Locus ID:	7042
UniProt ID:	P61812
Cytogenetics:	1q41
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:	50.4 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. Disruption of the TGF-beta/SMAD pathway has been implicated in a variety of human cancers. A chromosomal translocation that includes this gene is associated with Peters' anomaly, a congenital defect of the anterior chamber of the eye. Mutations in this gene may be associated with Loeys-Dietz syndrome. This gene encodes multiple isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Aug 2016]

Product images:



Circular map for RC227984



Western blot validation of overexpression lysate (Cat# [LY427631]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227984 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).