

Product datasheet for **RG212624**

TGF beta 2 (TGFB2) (NM_003238) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta 2 (TGFB2) (NM_003238) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TGF beta 2
Synonyms:	G-TSF; LDS4; TGF-beta2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG212624 representing NM_003238 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCACTACTGTGTGCTGAGCGCTTTTCTGATCCTGCATCTGGTCACGGTCGCGCTCAGCCTGTCTACCT
GCAGCACACTCGATATGGACCAGTTCATGCGCAAGAGGATCGAGGCGATCCGCGGGCAGATCCTGAGCAA
GCTGAAGCTCACCAGTCCCCAGAAGACTATCCTGAGCCCAGGAAGTCCCCCGGAGGTGATTTCCATC
TACAACAGCACCAGGGACTTGCTCCAGGAGAAGGCGAGCCGAGGGCGGCCCTGCGAGCGCGAGAGGA
GCGACGAAGAGTACTACCCAAGGAGGTTACAAAATAGACATGCCGCCCTTCTCCCTCCGAAAATGC
CATCCCGCCCACTTTCTACAGACCCTACTTCAGAATTGTTGCGATTGACGTCTCAGCAATGGAGAAGAAT
GCTTCCAATTTGGTGAAAGCAGAGTTCAGAGTCTTTCGTTTGCAGAACCCAAAAGCCAGAGTGCCTGAAC
AACGGATTGAGCTATATCAGATTCTCAAGTCCAAGATTTAACATCTCCAACCCAGCGCTACATCGACAG
CAAAGTTGTGAAAACAAGAGCAGAAGGCCAATGGCTCTCCTTCGATGTAAGTGTGCTGTTTCATGAATGG
CTTACCATAAAGACAGGAACCTGGGATTTAAAATAAGCTTACACTGTCCCTGCTGCACTTTTGTACCAT
CTAATAATTACATCATCCAAAATAAAGTGAAGAACTAGAAGCAAGATTTGCAGGTATTGATGGCACCTC
CACATATACCAGTGGTGATCAGAAAATAAAGTCCACTAGGAAAAAAAAACAGTGGGAAGACCCACAT
CTCCTGCTAATGTTATTGCCCTCCTACAGACTTGAGTCACAACAGACCAACCGGCGGAAGAGCGTGCTT
TGATGCGGCCTATTGCTTTAGAAATGTGCAGGATAATTGCTGCCTACGTCCACTTTACATTGATTTCAA
GAGGGATCTAGGGTGAAATGGATACACGAACCCAAAAGGTTACAATGCCAATTCTGTGCTGGAGCATGC
CCGATTTTATGGAGTTCAGACACTCAGCACAGCAGGGTCTGAGCTTATAAATACCATAAATCCAGAAG
CATCTGCTTCTCCTGCTGCGTGTCCCAAGATTTAGAACCCTAACCATTTCTACTACATTGGCAAAAC
ACCAAGATTGAACAGCTTTCTAATATGATTGTAAGTCTTGCAATGCAGC

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG212624 representing NM_003238
 Red=Cloning site Green=Tags(s)

MHYCVLSAFLILHLVTVALSLSTCSTLDMQFMRKRIEAIRGQILSKLKLTPPEDYPEPEEVPPEVISI
 YNSTRDLLQEASRRAACERERSDEEYAKEVYKIDMPPFFPSENAIPPTFYRPFYRIVRFDVSAMEKN
 ASNLVKAEFRVRLQNPKARVPEQRIELYQILKSKDLTSPTRQYIDSKVVKTRAEGEWLSFDVTDVHVEW
 LHHKDRNLGFKISLHPCCTTFVPSNNYIIPNKSEELERFAGIDGTSTYTSGDQKTIKSTRKKNNGKTPH
 LLLMLLPSYRLESQQTNRRKRKRALDAAYCFRNVQDNCLRPLYIDFKRDLGWKWIHEPKGYNANFCAGAC
 PYLWSSDTQHSRVLSTYNTINPEASASPCCVSDLEPLTILYYIGKTPKIEQLSNMIVKSKCS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003238

ORF Size: 1242 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.

RefSeq: [NM_003238.6](#)

RefSeq Size: 1695 bp

RefSeq ORF: 1245 bp

Locus ID: 7042

UniProt ID: [P61812](#)

Cytogenetics: 1q41

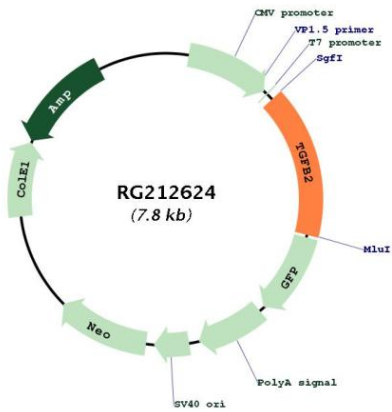
Domains: TGFb_propeptide, TGF-beta

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

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 Loey-Dietz syndrome. This gene encodes multiple isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Aug 2016]

Product images:



Circular map for RG212624