

Product datasheet for **RC219855**

TGF beta Receptor II (TGFB2) (NM_003242) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta Receptor II (TGFB2) (NM_003242) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TGF beta Receptor II
Synonyms:	AAT3; FAA3; LDS1B; LDS2; LDS2B; MFS2; RIIC; TAAD2; TBR-ij; TBRII; TGFbeta-RII; TGFR-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC219855 representing NM_003242
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGTCGGGGCTGCTCAGGGCCTGTGGCCGCTGCACATCGTCTGTGGACGCGTATCGCCAGCACGA
 TCCACCCGACGTTTCAAGTTCGGTAAATAACGACATGATAGTCACTGACAAACGCGTGCAGTCAAGTT
 TCCACAACGTGTAAATTTGTGATGTGAGATTTCCACCTGTGACAACCAGAAATCCTGCATGAGCAAC
 TGCAGCATCACCTCCATCTGTGAGAAGCCACAGGAAGTCTGTGTGGCTGTATGGAGAAAGATGACGAGA
 ACATAACACTAGAGACAGTTTGGCATGACCCCAAGCTCCCCTACCATGACTTTATCTGGAAGATGCTGC
 TTCTCCAAAGTGCATTATGAAGGAAAAAAAAAGCCTGGTGGAGACTTTCTTCATGTGTTCTGTAGCTCT
 GATGAGTGCAATGACAACATCATCTTCTCAGAAGAATAAACACCAGCAATCCTGACTTGTGTAGTCA
 TATTTCAAGTGACAGGCATCAGCCTCCTGCCACCACTGGGAGTTGCCATATCTGCATCATCATCTTCTA
 CTGCTACCGCGTTAACCCGCGCAGAGAAGCTGAGTTCAACCTGGGAAACCGCAAGACGCGGAAGCTCATG
 GAGTTCAGCGAGCACTGTGCCATCATCTGGAAGATGACCGCTCTGACATCAGCTCCACGTGTGCCAACA
 ACATCAACCACAACAGAGCTGCTGCCATTGAGCTGGACACCCCTGGTGGGAAAGGTCGCTTTGCTGA
 GGTCTATAAGGCCAAGCTGAAGCAGAACACTTCAGAGCAGTTTGGAGAGTGGCAGTCAAGATCTTTCCC
 TATGAGGAGTATGCCTCTTGAAGACAGAGAAGGACATCTTCTCAGACATCAATCTGAAGCATGAGAACA
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 CCACGCCAAGGGCAACCTACAGGAGTACCTGACGCGCATGTATCAGCTGGGAGGACCTGCGCAAGCTG
 GGCAGCTCCCTCGCCCGGGGATTGCTCACCTCCACAGTGATCACACTCCATGTGGGAGGCCAAGATGA
 CCATCGTGCACAGGGACCTCAAGAGCTCCAATATCCTCGTGAAGAACGACCTAACCTGCCTGTGTGA
 CTTTGGGCTTTCCCTGCGTCTGGACCTACTCTGTCTGTGGATGACCTGGCTAACAGTGGGACGGTGGGA
 ACTGCAAGATACATGGCTCCAGAAGTCTAGAATCCAGGATGAATTTGGAGAATGTTGAGTCTTCAAGC
 AGACCGATGTCTACTCCATGGCTCTGGTCTCTGGGAAATGACATCTCGTGTAAATGCAAGTGGGAGAAGT
 AAAAGATTATGAGCTCCATTTGGTTCCAAGGTGCGGGAGCACCCCTGTGTGAAAGCATGAAGGACAAC
 GTGTTGAGAGATCGAGGGCGACCAGAAATCCCAGTCTTGCTCAACCACAGGCATCCAGATGGTGT
 GTGAGACGTTGACTGAGTGTGGACCACGACCCAGAGGCCCGTCTCACAGCCAGTGTGTGGCAGAACG
 CTTTCAAGTGGAGCATCTGGACAGGCTCTCGGGAGGAGCTGCTCGGAGGAGAAGATCCTGAAGAC
 GGCTCCCTAAACTACAAA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>RC219855 representing NM_003242
 Red=Cloning site Green=Tags(s)

MGRGLLRGLWPLHIVLWTRIASTIPPHVQKSVNNDMIVTDNNGAVKFPQLCKFCDVRFSTCDNQKSCMSN
 CSITSICEKPQEVCAVWRKNDENITLETVCHDPKLPYHDFILEDAAAPKCMKEKKKPGETFFMCSCSS
 DECNDNIIFSEEYNTSNPDLVIFQVTGISLLPPLGVAISVIIIFYCYRVNRQQLSSTWETGKTRKLM
 EFSEHCAIILEDNRSDISSTCANNINHNTPELLPIELDTLVGKGRFAEVYKAKLKQNTSEQFETVAVKIFP
 YEEYASWKTEKDIFSDINLKHENILQFLTAEERKTELKQYWLITAFHAKGNLQEYLTRHVISWEDLRKL
 GSSLARGIAHLHSDHTPCGRPKMPIVHRDLKSSNILVKNDLTCCLCDFGLSLRLDPTLSVDDLANSQVVG
 TARYMAPEVLESRMNLENVESFKQTDVYSMALVLWEMTSRCNAVGEVKDYEPFPGSKVREHPCVESMKDN
 VLRDRGRPEIPSWLNLHQGIQMVCELTTECWHDHPEARLTAQCVARERFSELEHLDRLSGRSCSEEKIPED
 GSLNNTK

SGP**TRTRRL**EQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6187_d10.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_003242

ORF Size: 1701 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003242.6](#)

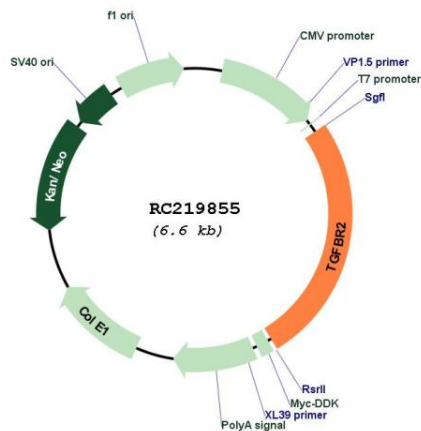
RefSeq Size: 4639 bp

RefSeq ORF: 1704 bp

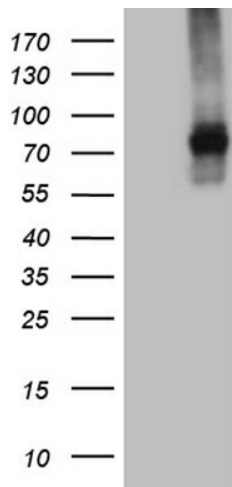
Locus ID: 7048

UniProt ID:	<u>P37173</u>
Cytogenetics:	3p24.1
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Adherens junction, Chronic myeloid leukemia, Colorectal cancer, Cytokine-cytokine receptor interaction, Endocytosis, MAPK signaling pathway, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway
MW:	64.57 kDa
Gene Summary:	The protein encoded by this gene is a transmembrane protein that has a protein kinase domain, forms a heterodimeric complex with TGF-beta receptor type-1, and binds TGF-beta. This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of genes related to cell proliferation, cell cycle arrest, wound healing, immunosuppression, and tumorigenesis. Mutations in this gene have been associated with Marfan Syndrome, Loeyes-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. Alternatively spliced transcript variants encoding different isoforms have been characterized. [provided by RefSeq, Aug 2017]

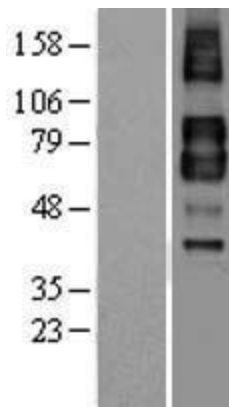
Product images:



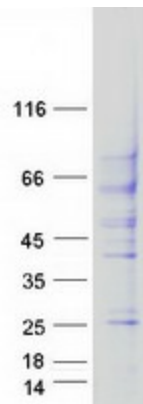
Circular map for RC219855



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TGFBR2 (Cat# RC219855, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TGFBR2 (Cat# [TA807912])(1:2000). Positive lysates [LY401116] (100ug) and [LC401116] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401116]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219855 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TGFBR2 protein (Cat# [TP319855]). The protein was produced from HEK293T cells transfected with TGFBR2 cDNA clone (Cat# RC219855) using MegaTran 2.0 (Cat# [TT210002]).