

Product datasheet for SC302306

OriGene Technologies, Inc.

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TGF beta Receptor II (TGFBR2) (NM_001024847) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: TGF beta Receptor II (TGFBR2) (NM_001024847) Human Untagged Clone

Tag: Tag Free

Symbol: TGF beta Receptor II

Synonyms: AAT3; FAA3; LDS1B; LDS2; LDS2B; MFS2; RIIC; TAAD2; TBR-ii; TBRII; TGFbeta-RII; TGFR-2

Mammalian Cell

None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)



Fully Sequenced ORF:

>OriGene sequence for NM_001024847 edited ATGGGTCGGGGGCTCCAGGGGCCTGTGGCCGCTGCACATCGTCCTGTGGACGCGTATC GCCAGCACGATCCCACCGCACGTTCAGAAGTCGGATGTGGAAATGGAGGCCCAGAAAGAT GAAATCATCTGCCCCAGCTGTAATAGGACTGCCCATCCACTGAGACATATTAATAACGAC ATGATAGTCACTGACAACAACGGTGCAGTCAAGTTTCCACAACTGTGTAAATTTTGTGAT GTGAGATTTTCCACCTGTGACAACCAGAAATCCTGCATGAGCAACTGCAGCATCACCTCC ACACTAGAGACAGTTTGCCATGACCCCAAGCTCCCCTACCATGACTTTATTCTGGAAGAT TGTTCCTGTAGCTCTGATGAGTGCAATGACAACATCATCTTCTCAGAAGAATATAACACC AGCAATCCTGACTTGTTGCTAGTCATATTTCAAGTGACAGGCATCAGCCTCCTGCCACCA CTGGGAGTTGCCATATCTGTCATCATCTCTACTGCTACCGCGTTAACCGGCAGCAG AAGCTGAGTTCAACCTGGGAAACCGGCAAGACGCGGAAGCTCATGGAGTTCAGCGAGCAC TGTGCCATCATCCTGGAAGATGACCGCTCTGACATCAGCTCCACGTGTGCCAACAACATC AACCACAACACAGAGCTGCCCCATTGAGCTGGACACCCTGGTGGGGAAAGGTCGCTTT GCTGAGGTCTATAAGGCCAAGCTGAAGCAGAACACTTCAGAGCAGTTTGAGACAGTGGCA GTCAAGATCTTTCCCTATGAGGAGTATGCCTCTTGGAAGACAGAGAAGGACATCTTCTCA GACATCAATCTGAAGCATGAGAACATACTCCAGTTCCTGACGGCTGAGGAGCGGAAGACG GAGTTGGGGAAACAATACTGGCTGATCACCGCCTTCCACGCCAAGGGCAACCTACAGGAG TACCTGACGCGGCATGTCATCAGCTGGGAGGACCTGCGCAAGCTGGGCAGCTCCCTCGCC CGGGGGATTGCTAACCTCCACAGTGATCACACTCCATGTGGGAGGCCCAAGATGCCCATC GTGCACAGGGACCTCAAGAGCTCCAATATCCTCGTGAAGAACGACCTAACCTGCTGCCTG AGTGGGCAGGTGGGAACTGCAAGATACATGGCTCCAGAAGTCCTAGAATCCAGGATGAAT TTGGAGAATGTTGAGTCCTTCAAGCAGACCGATGTCTACTCCATGGCTCTGGTGCTCTGG GAAATGACATCTCGCTGTAATGCAGTGGGAGAAGTAAAAGATTATGAGCCTCCATTTGGT TCCAAGGTGCGGGAGCACCCCTGTGTCGAAAGCATGAAGGACAACGTGTTGAGAGATCGA GGGCGACCAGAAATTCCCAGCTTCTGGCTCAACCACCAGGGCATCCAGATGGTGTGTGAG ACGTTGACTGAGTGCTGGGACCACGACCCAGAGGCCCGTCTCACAGCCCAGTGTGTGGCA GAACGCTTCAGTGAGCTGGAGCATCTGGACAGGCTCTCGGGGAGGAGCTGCTCGGAGGAG AAGATTCCTGAAGACGGCTCCCTAAACACTACCAAATAG

Restriction Sites: Please inquire **ACCN:** NM_001024847

Insert Size: 1800 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 customercare team at <a href="ma

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

TGF beta Receptor II (TGFBR2) (NM_001024847) Human Untagged Clone - SC302306

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 001024847.1</u>, <u>NP 001020018.1</u>

 RefSeq Size:
 4714 bp

 RefSeq ORF:
 1779 bp

 Locus ID:
 7048

 UniProt ID:
 P37173

 Cytogenetics:
 3p24.1

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

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, Loeys-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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer

isoform (A).