

## Product datasheet for **RC216595**

### TGF beta Receptor III (TGFBR3) (NM\_003243) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta Receptor III (TGFBR3) (NM_003243) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TGF beta Receptor III
Synonyms:	betaglycan; BGCAN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC216595 representing NM\_003243  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGACTTCCCATTATGTGATTGCCATCTTTGCCCTGATGAGCTCCTGTTTAGCCACTGCAGGTCCAGAGC  
 CTGGTGCCTGTGGAAGTGTACCTGTGAGTGCCTCCCATCCTGTCCAGGCCTTGATGGAGAGCTTAC  
 TGTTTTGTGAGGCTGTGCCAGCAGAGGCCACAAGTGGGCTGCCACAGGAGGTGCATGTCCTGAATCTCCGC  
 ACTGCAGGCCAGGGCCTGGCCAGCTACAGAGAGAGGTACACTTCACTGAATCCCATCTCCTCAGTCC  
 ACATCCACCACAAGTCTGTTGTGTTCTGCTCACTCCACACCCCTGGTGTGGCATCTGAAGACAGA  
 GAGACTTGCCTGGGGTCTCCAGACTGTTTTGGTGTCTGAGGGTCTGTGGTCCAGTTTTATCAGCA  
 AACTTCTCCTTGACAGCAGAAACAGAAGAAAGAACTCCCCATGGAAATGAACATCTGTTAAATTGGG  
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 GAGTACCTTCAACCCAAAGCAGCAGAAGGGTGTGTGATGTCCAGCCAGCCCGAGAATGAGGAAGTACACA  
 TCATCGAGCTAATCACCCCAACTCAACCCCTACAGTGTCTTCCAGGTGGATATAACAATTGATATAAG  
 ACCTTCTCAAGAGGATCTTGAAGTGGTCAAAAATCTATCCTGATCTTGAAGTGCAAAAGTCTGTCAAC  
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 TACGGATCCTGCTGGACCTGGTCCCTGCCTGCCATGAGAACCCGCCATCCGGGGAGGGGAAGGCCA  
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 CTGTTACCCGACCTGAAATCGTGGTGTAAATTGCAGCCTTCCAGGAGTGGGAACCCAGCAGCTTCC  
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 CCAGGGCGTCTTCTGTGCCAGAGAATGGACAGTTTATGTTGAGGTATCTGTTACTAAGGCTGAACAA  
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 CAGAGCACGCCTTGTCCAGCAGCAGCAGCGCC

**ACCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216595 representing NM\_003243  
 Red=Cloning site Green=Tags(s)

MTSHYVIAIFALMSSCLATAGPEPGALCELSVPSASHPVQALMESFTVLSGCASRGTGLPQEVHVLNLR  
 TAGQGPGLQREVTLHLNPISSVHIHHKSVVFLNSPHPLVWHLKTERLATGVSRLFVSEGSVVQFSSA  
 NFSLTAETEERNFPHGNEHLLNWARKEYGAVTSFTELKIARNIYIKVGEDQVFPKCNIGKNFLSLNYLA  
 EYLQPKAAEGCVMSSQPQNEEVHIIELITPNSNPYSAFQVDITIDIRPSQEDLEVVKNLILILKCKKSVN  
 WVIKSFVDVKGSLKIIAPNSIGFGKESERSMTMTKSIRDDIPSTQGNLVKVALDNGYSPITSYTMAPVANR  
 FHLRLENNAEEMGDEEVHTIPPELRILLDPGALPALQNPPIRGGEGQNGGLPFPFPDISRRVWNEEGEDG  
 LPRPKDPVIPSILQFPLREPEEVQGSVDIALSVKCDNEKMIVAVEKDSFQASGYSMDVTLDDPTCKAK  
 MNGTHFVLESPLNGCGTRPRWSALDGVVYNSIYIQVPALGDSSGWPDPGYEDLESGDNGFPGMDDEGDAS  
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 ELGFAIQTCFISPYSNDRMSHYTIIENICPKDESVKFYSPKRVHFPPIQADMCKRFSFVKPVTNTSL  
 LFLQCELTLCTKMEKHPQKLPKCVPPDEACTSLDASIIWAMMKNKFTTKPLAVIHHEAESKEKGPMSKE  
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 QSTPCSSSTA

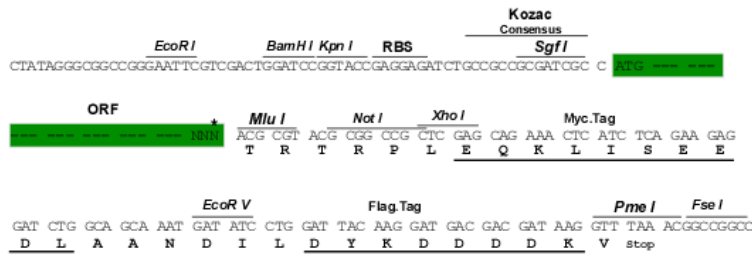
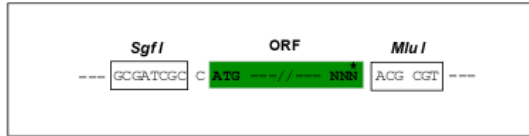
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6046\\_a11.zip](https://cdn.origene.com/chromatograms/mk6046_a11.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



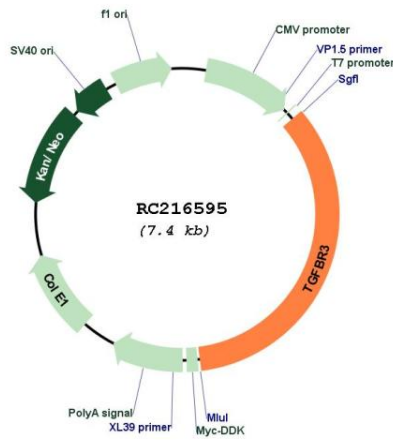
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_003243
<b>ORF Size:</b>	2553 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_003243.5</a>
<b>RefSeq Size:</b>	4199 bp
<b>RefSeq ORF:</b>	2556 bp
<b>Locus ID:</b>	7049
<b>UniProt ID:</b>	<a href="#">Q03167</a>
<b>Cytogenetics:</b>	1p22.1
<b>Domains:</b>	zona_pellucida
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Transmembrane
<b>MW:</b>	93.3 kDa

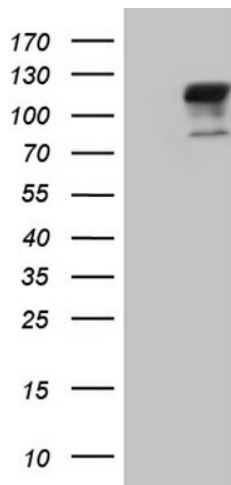
**Gene Summary:**

This locus encodes the transforming growth factor (TGF)-beta type III receptor. The encoded receptor is a membrane proteoglycan that often functions as a co-receptor with other TGF-beta receptor superfamily members. Ectodomain shedding produces soluble TGFB3, which may inhibit TGFB signaling. Decreased expression of this receptor has been observed in various cancers. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene.[provided by RefSeq, Sep 2010]

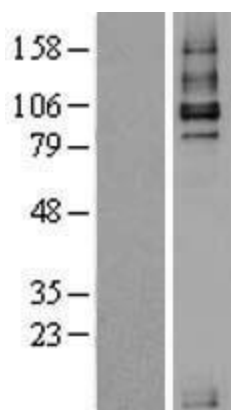
**Product images:**



Circular map for RC216595



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TGFBR3 (Cat# RC216595, 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-TGFBR3 (Cat# [TA809351])(1:2000). Positive lysates [LY401117] (100ug) and [LC401117] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401117]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216595 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).