

Product datasheet for **RC221447**

TIGIT (NM_173799) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TIGIT (NM_173799) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TIGIT
Synonyms:	VSIG9; VSTM3; WUCAM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221447 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGCTGGTGTCTCCTCCTGATCTGGGCCAGGGGCTGAGGCAGGCTCCCCTCGCCTCAGGAATGATGA
CAGGCACAATAGAAACAACGGGGAACATTTCTGCAGAGAAAGGTGGCTCTATCATCTTACAATGTCACCT
CTCCTCCACCACGGCACAAGTGACCCAGGTCAACTGGGAGCAGCAGGACCAGCTTCTGGCCATTTGTAAT
GCTGACTTGGGGTGGCACATCTCCCATCTTCAAGGATCGAGTGGCCCCAGTCCCGCCCTGGGCCTCA
CCCTCCAGTCGCTGACCGTGAACGATACAGGGGAGTACTTCTGCATCTATCACACCTACCCTGATGGGAC
GTACACTGGGAGAATCTTCTGGAGGTCCTAGAAAGCTCAGTGGCTGAGCACGGTGCCAGGTTCCAGATT
CCATTGCTTGGAGCCATGGCCGCGACGCTGGTGGTCATCTGCACAGCAGTCATCGTGGTGGTTCGCGTTGA
CTAGAAAGAAGAAAGCCCTCAGAATCCATTCTGTGGAAGGTGACCTCAGGAGAAAATCAGCTGGACAGGA
GGAATGGAGCCCCAGTGCTCCCTCACCCCAGGAAGCTGTGTCCAGGCAGAAGCTGCACCTGCTGGGCTC
TGTGGAGAGCAGCGGGGAGAGGACTGTGCCGAGCTGCATGACTACTTCAATGTCTGAGTTACAGAAGCC
TGGTAAGTGCAGCTTCTTCACAGAGACTGGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC221447 protein sequence
Red=Cloning site Green=Tags(s)

MRWCLLLIWAQGLRQAPLASGMMTGTIETTGNISAEKGGSIILQCHLSSTTAQVTQVNWEQQDQLLAICN
 ADLGWHISPSFKDRVAPGPGGLGLTLQSLTVNDTGEYFCIYHTYDPGTYTGRIFLEVLSSVAEHGARFQI
 PLLGAMAATLVVICTAVIVVVALTRKKKALRIHSVEGDLRRKSAGQEEWSPSAPSPGGSCVQAEAAPAGL
 CGEQRGEDCAELHDYFNVL SYRSLGNCSFFTETG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6449_f12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_173799

ORF Size: 732 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_173799.4](#)

RefSeq Size: 2978 bp

RefSeq ORF: 735 bp

Locus ID: 201633

UniProt ID: [Q495A1](#)

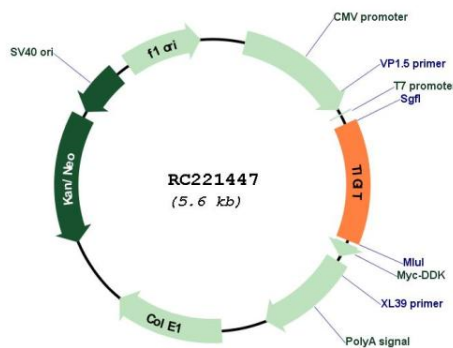
Cytogenetics: 3q13.31

Protein Families: Transmembrane

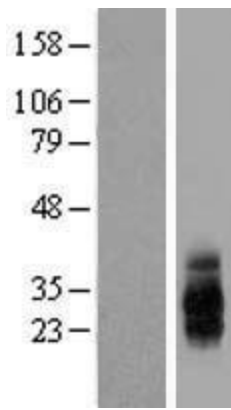
MW: 26.3 kDa

Gene Summary: This gene encodes a member of the PVR (poliovirus receptor) family of immunoglobulin proteins. The product of this gene is expressed on several classes of T cells including follicular B helper T cells (TFH). The protein has been shown to bind PVR with high affinity; this binding is thought to assist interactions between TFH and dendritic cells to regulate T cell dependent B cell responses.[provided by RefSeq, Sep 2009]

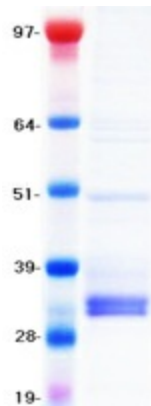
Product images:



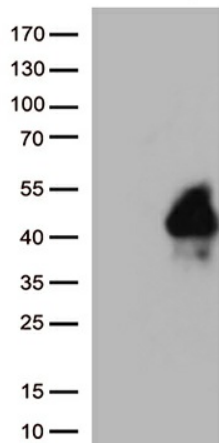
Circular map for RC221447



Western blot validation of overexpression lysate (Cat# [LY406575]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221447 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TIGIT protein (Cat# [TP321447]). The protein was produced from HEK293T cells transfected with TIGIT cDNA clone (Cat# RC221447) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TIGIT (Cat# RC221447, 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-TIGIT (Cat# [TA813033])(1:1000).