

Product datasheet for **RC207902**

TBX21 (NM_013351) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TBX21 (NM_013351) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TBX21
Synonyms:	T-bet; T-PET; TBET; TBLYM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC207902 representing NM_013351
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCATCGTGGAGCCGGGTTGCGGAGACATGCTGACGGGCACCGAGCCGATGCCGGGGAGCGACGAGG
 GCCGGGGCCCTGGCGCCGACCCGACGACCGCTACTTCTACCCGGAGCCGGGCGCGCAGGACCGGGACGA
 CGGTGCGGGGGCGGCGAGCCTGGGGTCTCCCTACCCGGGGGGCGCCTTGGTGCCCGCCCCCGGAGCCGC
 TTCCTTGGAGCCTACGCCTACCCGCCGCGACCCAGGCGGCCGGCTTCCCGGCGCGGGCGAGTCTTCC
 CGCCGCCCGGGACGCGGAGGGCTACCAGCCGGGCGAGGGCTACGCCGCCCGGACCCGCGCGCCGGGT
 CTACCCGGGGCCGCTGAGGACTACGCGCTACCCGCGGGACTGGAGGTGTGGGGAAACTGAGGGTCGCG
 CTCAACAACCACCTGTTGTGGTCCAAGTTAATCAGCACCAGACAGAGATGATCATCACCAGCAGGGAC
 GCGGATGTTCCATTCTGTCTTACTGTGGCCGGCTGGAGCCACCAGCCACTACAGGATGTTTGT
 GGAGTGGTCTTGGTGGACCAGCACCCTGGCGGTACCAGAGCGCAAGTGGGTGCAAGTGTGAAAGGCC
 GAGGGCAGCATGCCAGGAAACCGCTGTACGTCCACCCGACTCCCCAACACAGGAGCGCACTGGATGC
 GCCAGGAAGTTTCATTTGGGAAACTAAAGCTCACAAACAAGGGGGCGTCCAACAATGTGACCCAGAT
 GATTGTGCTCCAGTCCCTCCATAAGTACCAGCCCGGCTGCATATCGTTGAGGTGAACGACGGAGAGCCA
 GAGGCAGCCTGCAACGCTTCCAACACGCATATCTTTACTTTCCAAGAAACCCAGTTTATTGCCGTGACTG
 CCTACCAGAAATGCCGAGATTACTCAGCTGAAAATTGATAATAACCCCTTTGCCAAAGGATTCCGGGAGAA
 CTTTGAGTCCATGTACACATCTGTTGACACCAGCATCCCTCCCCGCTGGACCAACTGTCAATTCTT
 GGGGAGATCACTACTCTCTCTCTACCAACCAGTATCCTGTCCCAGCCGCTTCTACCCGACCTTC
 TGAGTTTCGAGCAGTCAGCATGAAGCCTGCATTCTTGCCCTCTGCCCTGGGCCACCATGTCCTACTAC
 CGAGGCCAGGAGTCTTGGCACCTGGAGCTGGCTGGCCTGTGGCACCCAGTACCCTCCCAAGATGGGCC
 CGGCCAGTGGTCCGCCCTATGCGGACTCTGCCCATGGAACCCGGCCCTGGAGGCTCAGAGGGACGGGG
 ACCAGAGGACCAGGGTCCCCCTTGGTGTGGACTGAGATTGCCCCATCCGGCCGGAATCCAGTATTCA
 GGACTGGGCGAAGGAGACTCTAAGAGGAGGCGGTGTCCCCTATCCTTCCAGTGGTACAGCTCTCC
 CTGCTGGGGCCCTTCTCTTTGATAAGGAAGCTGAAGGACAGTTTTATAACTATTTTCCCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207902 representing NM_013351
 Red=Cloning site Green=Tags(s)

MGIVEPGCGDMLTGTEPMPGSDEGRAPGADPQHRYFYPEPGAQDADERRGGSLGSPYPGGALVPAPPSR
 FLGAYAYPPRPQAAGFPGAGESFPPADAEGYQPGEGYAAPDPRAGLYGPREDYALPAGLEVSGKLRVA
 LNNHLLWSKFNQHQTEMIITKQGRRMFPFLSFTVAGLEPTSHYRMFVDVVLVDQHHWRYQSGKWWQCCKA
 EGSMPGNRLYVHPDSPNTGAHWMRQEVSFGLKLTNNKGASNNVTQMIVLQSLHKYQPRLHIVEVNDGEP
 EAACNASNTHIFTFQETQFIAVTAYQNAEITQLKIDNNPFKGFRENFESMYTSVDTIPSPPGPNQFL
 GGDHYSPLLPNQYPVPSRFYDLPQAKDVVPQAYWLGAPRDHSYEAEFRAVSMKPAFLPSAPGPTMSYY
 RGQEV LAPGAGWPVAPQYPPKMGPASWFRPMRTLPMEPGPGGSEGRGPEDQPPLVWTEIAPIRPESSDS
 GLGEGDSKRRRVSPYPSSGSSSPAGAPSPFDKEAEGQFYNYFPN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3926_f01.zip

Restriction Sites:

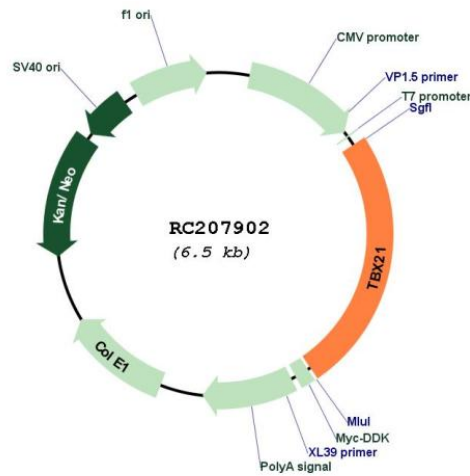
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

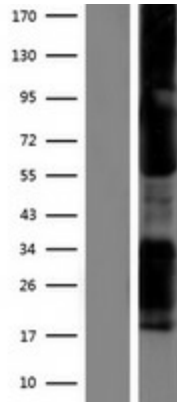
Plasmid Map:

ACCN:

NM_013351

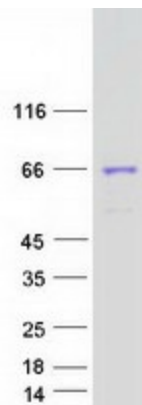
ORF Size:	1605 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional 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 custsupport@origene.com 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. More info</p>
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:	<ol style="list-style-type: none">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_013351.2
RefSeq Size:	2589 bp
RefSeq ORF:	1608 bp
Locus ID:	30009
UniProt ID:	Q9UL17
Cytogenetics:	17q21.32
Domains:	T-box
Protein Families:	Druggable Genome, Transcription Factors
MW:	58.1 kDa

Gene Summary:

This gene is a member of a phylogenetically conserved family of genes that share a common DNA-binding domain, the T-box. T-box genes encode transcription factors involved in the regulation of developmental processes. This gene is the human ortholog of mouse Tbx21/Tbet gene. Studies in mouse show that Tbx21 protein is a Th1 cell-specific transcription factor that controls the expression of the hallmark Th1 cytokine, interferon-gamma (IFNG). Expression of the human ortholog also correlates with IFNG expression in Th1 and natural killer cells, suggesting a role for this gene in initiating Th1 lineage development from naive Th precursor cells. [provided by RefSeq, Jul 2008]

Product images:

Western blot validation of overexpression lysate (Cat# [LY415654]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207902 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TBX21 protein (Cat# [TP307902]). The protein was produced from HEK293T cells transfected with TBX21 cDNA clone (Cat# RC207902) using MegaTran 2.0 (Cat# [TT210002]).