

Product datasheet for **RC216204**

TBX1 (NM_080647) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TBX1 (NM_080647) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TBX1
Synonyms:	CAFS; CATCH22; CTHM; DGCR; DGS; DORV; TBX1C; TGA; VCF; VCFS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC216204 representing NM_080647
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCACCTCAGCACCGTACCAGGGACATGGAAGCCTTACGGCCAGCAGCCTGAGCAGCCTGGGGGCCG
 CGGGGGCTTCCGGGCGCCGCTCGCCCGCGCCGACCCGTACGGCCCGCGAGCCCGCCGCGCC
 GCGCTACGACCCGTGCGCCGCGCCGCCCGCCCGGGTCCGCGCGCCGCGCCGACGCTACCCG
 TTTGCGCCGGCCCGGGGCCGCCACCAGCGCCGCGGAGCCCGAGGGCCCGGGGCCAGCTGCGCGG
 CCGCAGCCAAGGCGCCGGTGAAGAAGAACGGAAGGTGGCCGGTGTGAGCGTGCAGCTAGAGATGAAGG
 GCTGTGGGACGAGTTCAACCAGCTGGGCACCGAGATGATCGTACCAAGGCCGCGAGCGGATGTTTCC
 ACCTTCCAAGTGAAGCTTTCGGCATGGATCCCATGGCCGACTATATGCTGCTCATGGACTTCGTGCCGG
 TGGACGATAAGCGCTACCGGTACGCCTTCCACAGCTCCTCTGGTGGTGGCGGGGAAGGCCACCTGC
 CAGCCAGGCCGCGTGCCTACACCCGACTCGCTGCCAAGGGCGCGAGTGGATGAAGCAAATCGTG
 TCCTTCGACAAGCTCAAGCTGACCAACAATTACTGGAGGACAACGGCCACATTATTCTGAATTCATGC
 ACAGATACCAGCCCCGCTTCCACGTGGTCTATGTGGACCCACGCAAGATAGCGAAGAAATAGCCGAGGA
 GAACCTTAAAACCTTTGTGTTTCGAGGAGACGATTACCCGCGGTCACTGCCTACCAGAACCATCGGATC
 ACGCAGCTCAAGATTGCCAGCAATCCCTTCGCGAAAGGCTTCCGGGACTGTGACCTGAGGACTGGCCCC
 GGAACCACCGCCCGGCGCACTGCCGCTCATGAGCGCCTTCGCGCGCTCGCGGAACCCCGTGCTTCCCC
 GACGCAGCCAGCGGCACGGAGAAAGACGCGGCTGAGGCCCGCGAGAATTCCAGCGCAGCGGGCGGG
 CCAGCGGTGCTCGGGACCCGGCGCATCCTCCGACGTGCTGGCCGGGTGCTAAGCCCCGCTGCCCG
 GGGCCGGCGCGCCGGCTTAGTCCCGTCCCGCGCGCCCGGAGGCCCGCCAGTCCCCGAACCC
 CGAGCTGCGCCTGGAGGCGCCCGCGCATCGGAGCCGCTGCACCACCACCCTACAATAATCCGGCCGCC
 GCCTACGACCACTATCTCGGGGCAAGAGCCGGCCGCGCCCTACCCGCTGCCCGGCTGCTGGCCACG
 GCTACCACCCGCACGCGCATCCGCACCACCACCACCACCCGTGAGTCCAGCCCGCGCGCCGCCCGC
 CGCTGCCGCGAGTCCCGCGCCCAACATGTACTCGTGGCCGGAGCCGCGCCCGGCTCTACGAC
 TATTGCCCCAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216204 representing NM_080647
 Red=Cloning site Green=Tags(s)

MHFSTVTRDMEAF TASSLSSLGAAGGFPGAASPGADPYGPREPPPPRYDPCAAAAPGAPGPPPPHAYP
 FAPAAGAATSAAAPEPGASCASAAAAPVKNAKVAGVSVQLEMKALWDEFNQLGTEMI VTKAGRRMFP
 TFQVKLFGMDPMADYMLLMDFVPVDDKRYRYAFHSSSWLVAGKADPATPGRVHYHPDSPAQAQWMKQIV
 SFDKLLKLTNNLLDDNGHIIILNSMHRYQPRFHVVYVDPKRDSEKYAEENFKTFVFEETRF TAVTAYQNHRI
 TQLKIASNPF AKGFRDCDPEDWPRNHRPGALPLMSAFARSNPV ASPTQPSGTEKDAAEARREFQRDAGG
 PAVLGDPAHPPQLLARVLSPLPGAGGAGLVPLPGAPGGRSPNPPELRLEAPGASEPLHHHPYKYPAA
 AYDHYLGA KSRPAPYPLPGLRGHGYHPAHPHHHHHPVSPAAAAAAAAAAAAAAAAAMYS SAGAAPPGSYD
 YCPR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg4885_e06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_080647

ORF Size: 1482 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.

RefSeq: [NM_080647.1](#), [NP_542378.1](#)

RefSeq Size: 2082 bp

RefSeq ORF: 1488 bp

Locus ID: 6899

UniProt ID: [O43435](#)

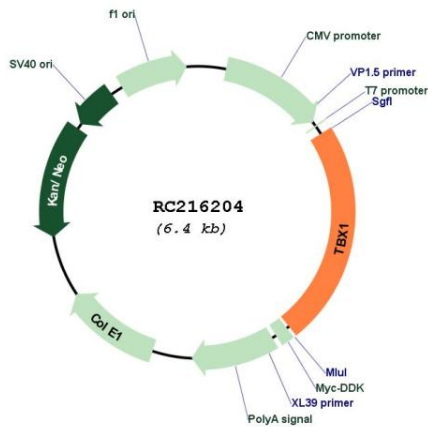
Cytogenetics: 22q11.21

Protein Families: Transcription Factors

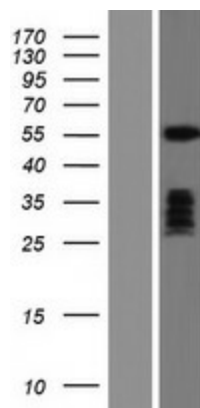
MW: 52.5 kDa

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 product shares 98% amino acid sequence identity with the mouse ortholog. DiGeorge syndrome (DGS)/velocardiofacial syndrome (VCFS), a common congenital disorder characterized by neural-crest-related developmental defects, has been associated with deletions of chromosome 22q11.2, where this gene has been mapped. Studies using mouse models of DiGeorge syndrome suggest a major role for this gene in the molecular etiology of DGS/VCFS. Several alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

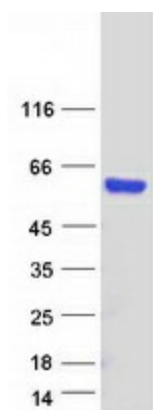
Product images:



Circular map for RC216204



Western blot validation of overexpression lysate (Cat# [LY409117]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216204 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TBX1 protein (Cat# [TP316204]). The protein was produced from HEK293T cells transfected with TBX1 cDNA clone (Cat# RC216204) using MegaTran 2.0 (Cat# [TT210002]).