

Product datasheet for **RG216204**

TBX1 (NM_080647) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TBX1 (NM_080647) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TBX1
Synonyms:	CAFS; CATCH22; CTHM; DGCR; DGS; DORV; TBX1C; TGA; VCF; VCFS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG216204 representing NM_080647
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCACCTCAGCACCGTACCAGGGACATGGAAGCCTTACAGGCCAGCAGCCTGAGCAGCCTGGGGGCCG
 CGGGGGCTTCCGGGGCGCCGCTCGCCGGCGCCGACCCGTACGGCCCGCGAGCCCGCCGCGCC
 GCGCTACGACCCGTGCGCCGCGCCGCCCGCCCGGGTCCGCGCGCCGCGCCGACGCTACCCG
 TTTGCGCCGGCCCGGGGCCGCCACCAGCGCCGCGCCGAGCCCGAGGGCCCGGGGCCAGCTGCGCGG
 CCGCAGCAAGGCGCCGGTGAAGAAGAACGGAAGGTGGCCGGTGTGAGCGTGCAGCTAGAGATGAAGGC
 GCTGTGGGACGAGTTCAACCAGCTGGGCACCGAGATGATCGTACCAAGGCCGCGAGCGGATGTTTCCC
 ACCTTCCAAGTGAAGCTTTCGGCATGGATCCCATGGCCGACTATATGCTGCTCATGGACTTCGTGCCGG
 TGGACGATAAGCGCTACCGGTACGCCTCCACAGCTCCTCCTGGTGGTGGCGGGGAAGGCCGACCTGC
 CAGCCAGGCCGCGTGCCTACACCCGACTCGCTGCCAAGGGCGCGCAGTGGATGAAGCAAATCGTG
 TCCTTCGACAAGCTCAAGCTGACCAACAATTACTGGACGACAACGGCCACATTATTCTGAATTCATGC
 ACAGATACCAGCCCCGCTTCCACGTGGTCTATGTGGACCCACGCAAGATAGCGAAGAAATAGCCGAGGA
 GAACCTTAAAACCTTTGTGTTTCGAGGAGACGATTACCCGCGGTCACTGCCTACCAGAACCATCGGATC
 ACGCAGCTCAAGATTGCCAGCAATCCCTTCGCGAAAGGCTTCCGGGACTGTGACCTGAGGACTGGCCCC
 GGAACCACCGGCCCGGCGCACTGCCGCTCATGAGCGCCTTCGCGCGCTCGCGGAACCCCGTGCTTCCCC
 GACGCAGCCAGCGGCACGGAGAAAGACGCGGCTGAGGCCCGCGAGAATTCCAGCGCAGCGGGGGGG
 CCAGCGGTGCTCGGGACCCGGCGCATCCTCCGACGTGCTGGCCGGGTGCTAAGCCCCGCTGCCCG
 GGCCCGGCGCGCCGGCTTAGTCCCCTGCCCGCGCGCCCGGAGGCCCGCCAGTCCCCGAACCC
 CGAGCTGCGCCTGGAGGCGCCCGGCGCATCGGAGCCGCTGCACCACCACCCTACAAATATCCGGCCGCC
 GCCTACGACCACTATCTCGGGGCAAGAGCCGGCCGCGCCCTACCCGCTGCCCGGCTGCTGGCCACG
 GCTACCACCCGCAGGGCATCCGCACCACCACCACCACCCGTGAGTCCAGCCGCGCGCGCCGCCCGC
 CGCTGCCGCGAGTCCCGCGCCGCAACATGTACTCGTGGCCGGAGCCGCGCCCGGCTCCTACGAC
 TATTGCCCCAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG216204 representing NM_080647
 Red=Cloning site Green=Tags(s)

MHFSTVTRDMEAFASSLSSGAAAGFPGAASPGADPYGPREPPPPRYDPCAAAAPGAPGPPPPHAYP
 FAPAAGAATSAAAPEPGASCASAAAAPVKKNAKVAGVSVQLEMKALWDEFNQLGTEMIIVTKAGRRMFP
 TFQVKLFGMDPMADYMLLMDFVPVDDKRYRYAFHSSSWLVAGKADPATPGRVHYHPDSPAQGAQWMKQIV
 SFDKLLKLTNNLLDDNGHIIILNSMHRYQPRFHVVYVDPKDESEYAEENFKTFVFEETRFTAVTAYQNHRI
 TQLKIASNPFAKGFRCDCPEDWPRNHRP GALPLMSAFARSNPVASPTQPSGTEKDAAEARREFQRDAGG
 PAVLGDPAHPPQLLARVLSPLPGAGGAGLVPLPGAPGGRPSPPNPELRLEAPGASEPLHHHPYKYPAA
 AYDHYLGAASRPAPYPLPLGRGHYHPHGHHPHHHPVSPAAAAAAAAAAAAAAAAAMYSAGAAPPGSYD
 YCPR

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

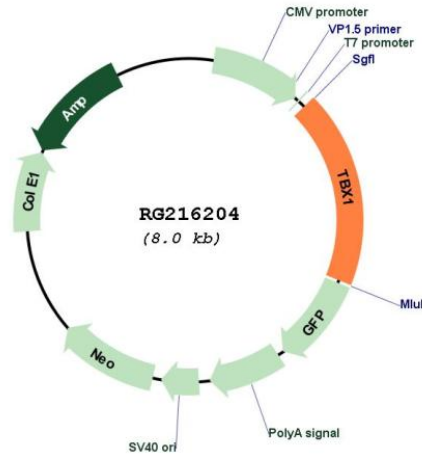
Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---
 T R T R P L E M E S D - - -

PmeI FseI
 --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
 - - E E R V Stop

Plasmid Map:


ACCN: NM_080647

ORF Size: 1485 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

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]