

Product datasheet for RC214605

TBX1 (NM_080646) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TBX1 (NM_080646) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TBX1
Synonyms:	CAFS; CATCH22; CTHM; DGCR; DGS; DORV; TBX1C; TGA; VCF; VCF5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214605 representing NM_080646 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCACCTCAGCACCGTCACCAGGGACATGGAAGCCTTCACGGCCAGCAGCCTGAGCAGCCTGGGGGCCG
CGGGGGCTTCCCGGGCGCCGCTCGCCCGCGCCGACCCGTACGGCCCGCGAGCCCCCGCCCGCCG
GCCGCGTACGACCCGTGCGCCCGCCGCCCGCCCGGGCCCGCCGCGCCCGCCGCGCCGACGCCTAC
CCGTTTGGCCGGCCCGGGGCCGCCACCAGCGCCGCGCCGAGCCGAGGGCCCCGGGCCAGCTGCG
CGCCCGCAGCCAAGGCGCGGTGAAGAAGAACCGAAGGTGGCCGGTGTGAGCGTGCAGTAGAGATGAA
GGCGCTGTGGGACGAGTTCAACCAGCTGGGCACCGAGATGATCGTCACCAAGGCCGCGAGCGGATGTTT
CCCACCTTCCAAGTGAAGCTCTTCGCGATGGATCCCATGGCCGACTATATGCTGCTCATGGACTTCGTGC
CGGTGGACGATAAGCGCTACCGGTACGCTTCCACAGCTCCTCCTGGCTGGTGGCGGGGAAGGCCGACCC
TGCCACGCCAGGCCGCGTGCCTACCACCCGACTCGCTGCCAAGGGCGCGCAGTGGATGAAGCAAATC
GTGTCCTTCGACAAGCTCAAGCTGACCAACAATTACTGGACGACAACGGCCACATTATTCTGAATTCCA
TGACAGATACCAGCCCCGCTTCCACGTGGTCTATGTGGACCCACGAAAGATAGCGAGAAATATGCCGA
GGAGAACTTCAAACCTTTGTGTTTCGAGGAGACACGATTACCCGCGTCACTGCCTACCAGAACCATCGG
ATCAGCAGCTCAAGATTGCCAGCAATCCCTTCGCGAAAGGCTTCGGGACTGTGACCTGAGGACTGGC
CCCGAAACCACCGCCCGCGCACTGCCGCTCATGAGCGCTTCGCGCGCTCGCGGAACCCCGTGGCTTC
CCCGACGACGCCAGCGCACGGAGAAAGTGGACATGTCTGAAGGACAAGGAAGTGAAGCTGAGACG
TCTAGGAACACACCAGAGAGAGAAGTGGAGCTTCTGAGGGATGCAGGTGGCTGTGTGAACCTGGGCTCC
CCTGCCCGCAGAGTGCCAACCTTCAATACCCAGGGCTGGTGGCTGGGAGGCCGAGGTGACCGTCT
TTGT

ACGCGTACGGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC214605 representing NM_080646
Red=Cloning site Green=Tags(s)

MHFSTVTRDMEAF TASSLSSLG AAGGFPGAASPGADPYGPREPPPPPPRYDPCAAAAPGAPGPPPPHAY
 PFAPAAGAATSAAAEPEGPGASCAAAKAPVKNAKVAGVSVQLEMKALWDEFNQLGTEMI VTKAGRRMF
 PTFQVKLFGMDPMADYMLLMDFVPVDDKRYRYAFHSSSWLVAGKADPATPGRVHYHPDSPAKGAQWMKQI
 VSFDKLLKLTNNLLDDNGHIILNSMHRYQPRFHVVYVDPKDKSEKYAEENFKTFVFEETRF TAVTAYQNH
 ITQLKIASNPF AKGFRDCPEDWPRNHRPGALPLMSAF ARSRNPV ASPTQPSGTEKGGHVLKDKVEKAE
 T SRNTPEREVELLRDAGGCYNLGLPCPAECQPFNTQGLVAGRTAGDRLC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3613_h03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_080646

ORF Size: 1194 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_080646.1](#), [NP_542377.1](#)

RefSeq Size: 1482 bp

RefSeq ORF: 1197 bp

Locus ID: 6899

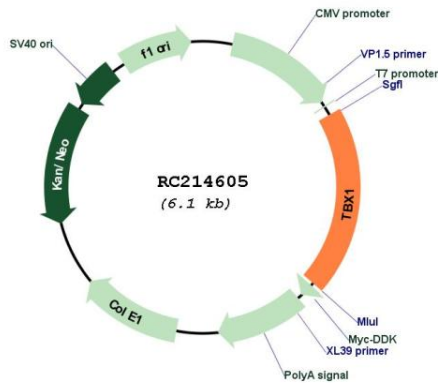
UniProt ID: [O43435](#)

Cytogenetics: 22q11.21

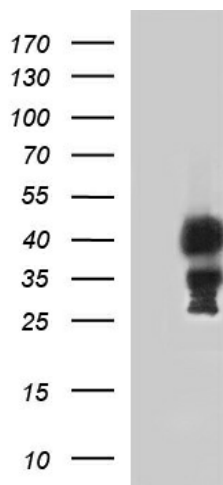
Protein Families: Transcription Factors

MW: 43 kDa

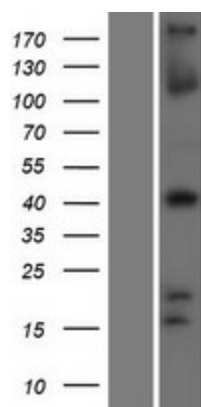
Gene Summary: This gene is a member of a phylogenetically conserved family of genes that share a common DNA-binding domain, the T-box. T-box genes encode transcription factors involved in the regulation of developmental processes. This gene product shares 98% amino acid sequence identity with the mouse 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:


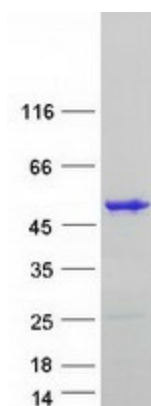
Circular map for RC214605



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TBX1 (Cat# RC214605, 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-TBX1 (Cat# [TA507326]). Positive lysates [LY409116] (100ug) and [LC409116] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY409116]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214605 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TBX1 protein (Cat# [TP314605]). The protein was produced from HEK293T cells transfected with TBX1 cDNA clone (Cat# RC214605) using MegaTran 2.0 (Cat# [TT210002]).