

## Product datasheet for RC216577

### TBX5 (NM\_080718) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TBX5 (NM_080718) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TBX5
Synonyms:	HOS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216577 representing NM_080718 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCGACGCAGACGAGGGCTTTGGCCTGGCGCACACGCCTCTGGAGCCTGACGCAAAGACCTGCCCT  
GCGATTCGAAACCCGAGAGCGCGCTCGGGGCCCCAGCAAGTCCCGTCGTCGCCGAGGCCGCTTAC  
CCAGCAGGGCATGGAGGGAATCAAAGTGTTCATGAAAGAGAAGTGGCTAAAATCCACGAAGT  
GGCAGGAAATGATCATAACCAAGGCTGGAAGGCGGATGTTCCAGTTACAAAGTGAAGGTGACGGCC  
TTAATCCCAAACGAAGTACATTCTTCATGGACATTGTACCTGCCGACGATCACAGATACAAATTCGC  
AGATAATAAATGGTCTGTGACGGCAAAGCTGAGCCCGCCATGCCTGGCCGCTGTACGTGACCCAGAC  
TCCCCCGCCACCGGGGCGCATTGGATGAGGCAGCTCGTCTCCTCCAGAACTCAAGCTCACCAACAACC  
ACCTGGACCCATTTGGGCATATTATTCTAAATTCATGCACAAATACCAGCCTAGATTACACATCGTAA  
AGCGGATGAAAATAATGGATTTGGCTCAAAAAATACAGCGTTCTGCACTCACGTCTTTCCTGAGACTGCG  
TTTATAGCAGTGACTTCTACCAGAACCACAAGATCACGCAATTAAGATTGAGAATAATCCCTTTGCCA  
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GGTCCCCAGGAGCACCGTGAGGCAAAAAGTGGCCTCAACCACAGTCCTTTCAGCAGCGAGTCTCGAGCT  
CTCTCCACCTCATCCAATTTGGGGTCCCAATACCAGTGTGAGAATGGTGTTCGGGCCCTCCAGGACC  
TCTGCCTCCACCAACCCATACCCACTGCCCCAGGAGCATAGCCAAATTTACCATTGTACCAAGAGGAA  
AGGTGAGTGTGATCACCCCTGGTCAATTTGCTTCTTTTACCTTTTCTTCTTGGGTGGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC216577 representing NM\_080718  
Red=Cloning site Green=Tags(s)

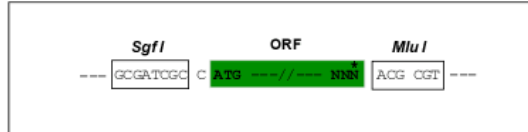
MADADEGFGLAHTPLEPDAKDLPCDSKPESALGAPSKSPSSPQAAFTQQGMEGIKVF LHERELWLKFHEV  
 GTEMIITKAGRRMFP SYKVKVTGLNPKTKYILLMDIVPADDHRYKFADNKWSVTGKAEPAMPGR L YVHPD  
 SPATGAHWMRQLVSFQK LKL TNNHLD PFGHII LNSMHKYQ PRLHIVKADENNGFGSKNTAFCTHVPETA  
 FIAVTSYQNHK I TQLKIENPF AKGFRGSDDMELHRMSRMQSKEYPVVPRSTVRQKVASNHSPFSSESRA  
 LSTSSNLG SQYQCENGVSGPSQDLLPPNPYPLPQEHSQIYHCTKRKGECDHPWSICFLSYLFLSLGWG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_080718

**ORF Size:** 1047 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\\_080718.1](#), [NP\\_542449.1](#)

**RefSeq Size:** 1050 bp

**RefSeq ORF:** 1049 bp

**Locus ID:** 6910

**Cytogenetics:** 12q24.21

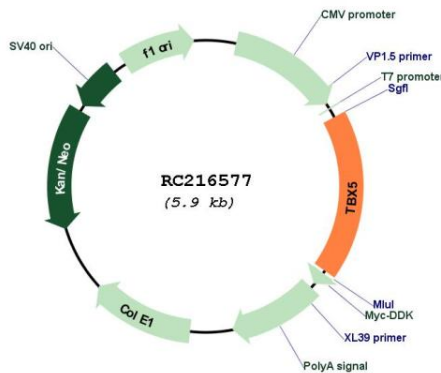
**Domains:** T-box

**Protein Families:** Druggable Genome, Transcription Factors

**MW:** 39 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 closely linked to related family member T-box 3 (ulnar mammary syndrome) on human chromosome 12. The encoded protein may play a role in heart development and specification of limb identity. Mutations in this gene have been associated with Holt-Oram syndrome, a developmental disorder affecting the heart and upper limbs. Several transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC216577