

## Product datasheet for **RG206804**

### **TBX5 (NM\_080717) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TBX5 (NM_080717) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TBX5
Synonyms:	HOS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG206804 representing NM\_080717  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCGACGACGAGGGCTTTGGCCTGGCGCACGCCTCTGGAGCCTGACGCAAAGACCTGCCCT  
 GCGATTCGAAACCGAGAGCGCGCTCGGGCCCCAGCAAGTCCCGTCGTCCCCGAGGCCGCTTCAC  
 CCAGCAGGGCATGGAGGGAATCAAAGTGTTCATGAAAGAGAACTGTGGCTAAAAATCCACGAAGT  
 GGCACGGAATGATCATAACCAAGGCTGGAAGCGGATGTTCCAGTTACAAAGTGAAGGTGACGGGCC  
 TTAATCCAAAACGAAGTACATTCTTCTCATGGACATTGTACCTGCCGACGATCACAGATACAAATTCG  
 AGATAATAAATGGTCTGTGACGGGCAAAGCTGAGCCCGCCATGCCTGGCCGCTGTACGTGACCCAGAC  
 TCCCCCGCCACCGGGCGCATTGGATGAGGCAGCTCGTCTCCTCCAGAACTCAAGCTCACCAACAACC  
 ACCTGGACCCATTTGGGCATATTATTCTAAATTCATGCACAAAACCAGCCTAGATTACACATCGTGAA  
 AGCGGATGAAAAAATGGATTTGGCTCAAAAAATACAGCGTTCTGCACTCACGTCTTTCCTGAGACTGCG  
 TTTATAGCAGTGACTTCCACCAGAACCACAAGATCACGCAATTAAGATTGAGAATAATCCCTTTGCCA  
 AAGGATTTCCGGGCGAGTATGACATGGAGCTGCACAGAATGTCAAGAATGCAAAGTAAAGAAATACCCGT  
 GGTCCCCAGGAGCACCGTGGGCAAAAAGTGGCCTCCAACCACAGTCTTTCCAGCAGCGAGTCTCGAGCT  
 CTCTCCACCTCATCCAATTTGGGGTCCCAATACCAGTGTGAGAATGGTGTTCGGGCCCTCCAGGACC  
 TCCTGCCTCCACCAACCCATACCCACTGCCCCAGGAGCATAGCCAAATTTACCATTGTACCAAGAGGAA  
 AGAGGAAGAATGTTCCACCACAGACCATCCCTATAAGAAGCCCTACATGGAGACATCACCCAGTGAAGAA  
 GATTCCTTCTACCGCTCTAGCTATCCACAGCAGCAGGGCCTGGGTGCCTCTACAGGACAGAGTCGGC  
 AGCGGCAAGCTTGATGTATGCCAGCTCTGCGCCCCCAGCGAGCCTGTGCCAGCCTAGAGGACATCAG  
 CTGCAACACAGTGGCCAAGCATGCCCTTCTACAGCAGCTGCACCGTACCACCGTGCAGCCATGGACAGG  
 CTACCCTACCAGCACTTCTCCGCTCACTTCACTCGGGGCCCTGGTCCCTCGGCTGGCTGGCATGGCCA  
 ACCATGGCTCCCCACAGCTGGGAGAGGGAATGTTCCAGCACCAGACCTCCGTGGCCACCAGCCTGTGGT  
 CAGGCAGTGTGGGCTCAGACTGGCCTGCAGTCCCCTGGCACCCTTACGCCCTGAGTTCCTCTACTCT  
 CATGGCGTGCCAAGGACTCTATCCCTCATCAGTACCCTCTGTGCACGGAGTTGGCATGGTGCCAGAGT  
 GGAGCGACAATAGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG206804 representing NM\_080717  
 Red=Cloning site Green=Tags(s)

MADADEGFGLAHTPLEPDAKDLPCDSKPESALGAPSKSPSSPQAAFTQQGMEGIKVF LHERELWLKFHEV  
 GTEMIITKAGRRMFPSYKVKVTGLNPKTKYILLMDIVPADDHRYKFADNKWSVTGKAEPAMPGRLLYVHPD  
 SPATGAHWMRQLVSFQKLKLTNNHLDPFGHIILNSMHKYQPRLLHIVKADENNGFGSKNTAFCTHVFPETA  
 FIAVTSYQNHKITQLKIENPFKGFGRGSDMELHRMSRMQSKEYPVVPRSTVRQKVASNHSPFSSESRA  
 LSTSSNLGSQYQCENGVSGPSQDLLPPPNPYPLPQEHSQIYHCTKRKEEECSTTDHPYKPKYMETSPSEE  
 DSFYRSSYPQQQLGASRYTESAQRQACMYASSAPPSEPVSLEDISCNTWPSMPSYSSCTVTTVQPMDR  
 LPYQHFSAHFTSGPLVPRLAGMANHGSPQLGEGMFQHQTSVAHQPVVRQCGPQTGLQSPGTLQPPEFLYS  
 HGVPRTLSPHQYHSVHGVGMVPEWSDNS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

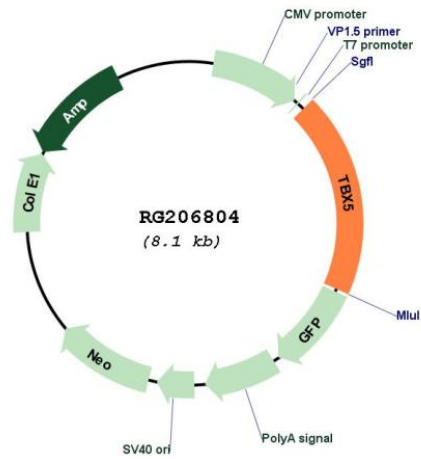
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_080717
<b>ORF Size:</b>	1557 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_080717.2</a> , <a href="#">NP_542448.1</a>
<b>RefSeq Size:</b>	3736 bp
<b>RefSeq ORF:</b>	1407 bp
<b>Locus ID:</b>	6910
<b>UniProt ID:</b>	<a href="#">Q99593</a>
<b>Cytogenetics:</b>	12q24.21
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Gene Summary:</b>	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]