

## Product datasheet for RC217520

### TTF1 (NKX2-1) (NM\_003317) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TTF1 (NKX2-1) (NM_003317) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TTF1
Synonyms:	BCH; BHC; NK-2; NKX2.1; NKX2A; NMTC1; T/EBP; TEBP; TITF1; TTF-1; TTF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217520 representing NM_003317 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGATGAGTCCAAGCACACGACTCCGTTCTCAGTGTCTGACATCTTGAGTCCCCTGGAGGAAAGCT  
ACAAGAAAGTGGGCATGGAGGGCGCGGCTCGGGCTCCGCTGGCGGCTACAGGCAGGGCCAGGCGGC  
ACCGCAAACAGCGGCCATGCAGCAGCACGCCGTGGGGCACCACGGCGCGTCACCGCCGCTACCACATG  
ACGGCGGGGGGTGCCAGCTCTCGACTCCCGTGGGGGCTACTGCAACGGCAACCTGGGAACA  
TGAGCGAGCTGCCCGTACCAGGACACCATGAGGAACAGCGCCTCTGGCCCCGGATGGTACGGCGCAA  
CCCAGACCCGCGTCCCGCCATCTCCCGCTTCATGGGCCCGGCGAGCGCATGAACATGAGCGGCATG  
GGCGGCCCTGGGCTCGCTGGGGGACGTGAGCAAGAACATGGCCCCGCTGCCAAGCGCGCCGCGCAGGAAGC  
GCCGGGTGCTCTTCTCGCAGGCGCAGGTGTACGAGCTGGAGCGACGCTTCAAGCAACAGAAGTACCTGTC  
GGCGCCGAGCGCGAGCACCTGGCCAGCATGATCCACCTGACGCCACGCAGGTCAAGATCTGGTTCCAG  
AACCACCGCTACAAAATGAAGCGCCAGGCCAAGGACAAGGCGCGCAGCAGCAACTGCAGCAGGACAGCG  
GCGGGCGGGGGCGCGGGGGCACCGGTGCCCGCAGCAGCAACAGGCTCAGCAGCAGTCGCCGCGACG  
CGTGGCGGTGCCGTCTGGTGAAGACGGCAAACCGTCCAGGGGGTCCCCCGCGCCGGCGCCGCC  
AGCCTACAAGGCCACGCGCAGCAGGCGCAGCACAGGCGCAGGCCGCGCAGGCGGGCGCAGCGGCC  
TCTCCGTGGGCAGCGGTGGCGCCGCTTGGCGCACACCCGGGCCACAGCCAGGCAGCGCAGGCCAGTC  
TCCGGACCTGGCGCACCACGCCCGCAGCCCGCGCGCTGCAGGGCCAGGTATCCAGCCTGTCCACCTG  
AACTCCTCGGGCTCGACTACGGCACCATGTCCTGCTCCACCTTGTATACGGTTCGGACCTGG

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC217520 representing NM\_003317  
Red=Cloning site Green=Tags(s)

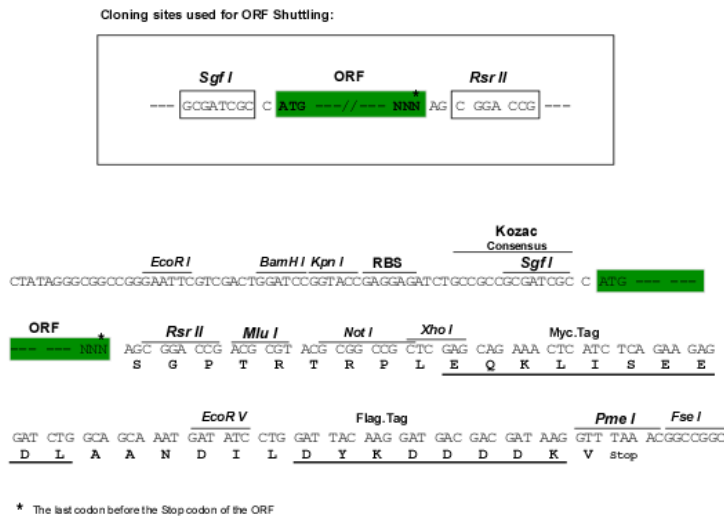
MSMSPKHTTFFSVSDILSPLEESYKKVGMEGGGLGAPLAAYRQGQAAPPTAAMQQHAVGHHGAVTAAYHM  
 TAAGVPQLSHSAVGGYCNGNLGNMSELPPYQDTMRNSASGPGWYGANPDRFPAISRFGMPASGMNMSGM  
 GGLGSLGDVSKNMAPLPSAPRRRRRVLFSQAQVYELERRFKQKYL SAPEREHLASMIHL TPTQVKIWFQ  
 NHRYKMKRQAKDKAAQQQLQDSDGGGGGGTGCPCQQQAQQSPRRVAVPVL VKDQKPCQAGAPAPGAA  
 SLQGHAAQQAQHAQAAQAAAAAISVSGSGAGLGAHPGHQPGSAGQSPDLAHHAA SPAALQGVSSL SHL  
 NSSGSDYGTMSCSTLLYGRTW

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2595\\_a01.zip](https://cdn.origene.com/chromatograms/mg2595_a01.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_003317

**ORF Size:** 1113 bp

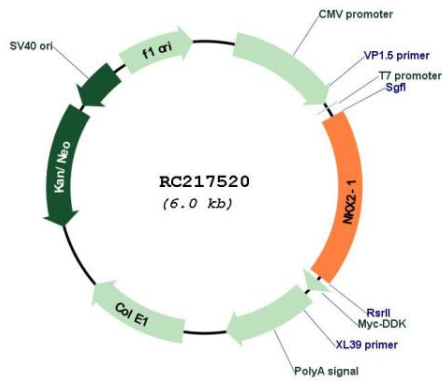
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

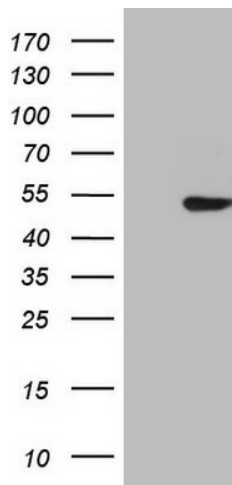
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_003317.4</a>
<b>RefSeq Size:</b>	2352 bp
<b>RefSeq ORF:</b>	1116 bp
<b>Locus ID:</b>	7080
<b>UniProt ID:</b>	<a href="#">P43699</a>
<b>Cytogenetics:</b>	14q13.3
<b>Domains:</b>	homeobox
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors
<b>MW:</b>	38.4 kDa
<b>Gene Summary:</b>	<p>This gene encodes a protein initially identified as a thyroid-specific transcription factor. The encoded protein binds to the thyroglobulin promoter and regulates the expression of thyroid-specific genes but has also been shown to regulate the expression of genes involved in morphogenesis. Mutations and deletions in this gene are associated with benign hereditary chorea, choreoathetosis, congenital hypothyroidism, and neonatal respiratory distress, and may be associated with thyroid cancer. Multiple transcript variants encoding different isoforms have been found for this gene. This gene shares the symbol/alias 'TTF1' with another gene, transcription termination factor 1, which plays a role in ribosomal gene transcription. [provided by RefSeq, Feb 2014]</p>

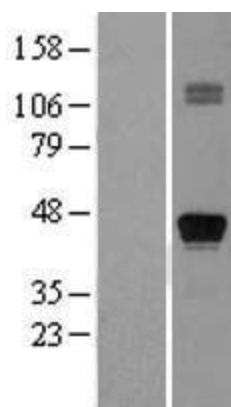
Product images:



Circular map for RC217520



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NKX2-1 (Cat# RC217520, 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-NKX2-1 (Cat# [TA808440]). Positive lysates [LY401141] (100ug) and [LC401141] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401141]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217520 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).