

## Product datasheet for **RC205218**

### TKTL1 (NM\_012253) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TKTL1 (NM_012253) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TKTL1
Synonyms:	TKR; TKT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC205218 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGATGCTGAGGCGAGGGCTGAGTTCGCGGAGGAGGCCAGACCTGACAGGGGCACCTTGCAGGTGT  
 TTCAAGATATGGCCAGCCGCTTGCGAATCCATTCCATCAGGGCCACATGCTCCACGAGCTCCGGCCACCC  
 TACATCATGTAGCAGTCTTCTGAGATCATGTCTGTGCTGTTCTTCTACATCATGAGGTACAAGCAGTCA  
 GATCCAGAGAATCCGGACAACGACCGATTTGTCCTCGAAAGAGACTGTCGTTTGTGGATGTGGCAACAG  
 GATGGCTCGGACAAGGACTGGGAGTTGCATGTGGAATGGCATATACTGGCAAGTACTTCGACAGGGCCAG  
 CTACCGGGTGTCTGCCTCATGAGTGTGGCGAGTCTCAGAAGGCTCTGTCTGGGAGGCAATGGCCTTT  
 GCTTCTACTACAGTCTGGACAATCTTGTGGCAACCTTTGATGTGAACCGCTGGACACAGTGGTGCAT  
 TGCCCGCCGAGCACTGCATAAACATCTATCAGAGGCGCTGCGAAGCCTTTGGGTGGAACACTTATGTGT  
 GGACGGCCGGGACGTGGAGGCATGTGCCAGGTATTCTGGCAGGCTTCTCAGGTGAAGCACAGCCCACT  
 GCTGTGGTGGCAAGACCTTCAAGGGCCGGGCCACCCCAAGTATTGAGGATGCAGAAAGTTGGCATGCAA  
 AGCCAATGCCGAGAGAAAGAGCAGATGCCATTATCAAATTAATTGAGAGCCAGATACAGACCAGCAGGAA  
 TCTTGACCACAGCCCCCATTGAGGACTCACCTGAAGTCAACATCACAGATGTAAGGATGACCTCTCCA  
 CCTGATTACAGAGTTGGTACAAGATAGCTACTCGAAAGCATGCGGTCTGGCTCTGGCTAAGCTGGGCT  
 ACGCGAACACAGAGTCGTTGTGCTGGATGGTACACCAGGACTCTACTTTCTCTGAGATATCAACAA  
 GGAGTACCCTGAGCGCTTATCGAGTGCCTTATGGCTGAACAAAACATGGTGAGCGTGGCTCTGGGCTGT  
 GCCTCCCGTGGACGGACCATTTGCTTTGCTAGCACCTTTGCTGCCTTTCTGACTCGAGCATTGATCACA  
 TCCGGATAGGAGGCTCGCTGAGAGCAACATCAACATTATTGGTCCCCTGCTGGGATCTGTTGGTGA  
 CGATGGTCTTCCAGATGGCCCTGGAGGATATAGCCATGTTCCGAACCATTCCCAAGTGCACGATCTTC  
 TACCCAATGATGCCGTCTCCACGGAGCATGCTGTTGCTCTGGCAGCAATGCCAAGGGGATGTGCTTCA  
 TTCGGACCACCCGACCAGAACTATGGTTATTTACACCCACAAGAACGCTTTGAGATCGGACAGGCCAA  
 GGTCTCCGCCACTGTGTGAGTACAAGGTACAGTATTGGAGCTGGAATTACTGTGTATGAAGCCTTA  
 GCAGCTGTGATGAGCTTTCGAAACAAGATATTTTTATCCGTGTCATCGACCTGTTTACCATTAAACCTC  
 TGGATGTCGCCACCATCGTCTCCAGTGCAAAAGCCACAGAGGGCCGGATCATTACAGTGGAGGATCACTA  
 CCCGAAGGTGGCATCGGGAAGCTGTCTGCCAGCCGTCTCCATGGATCCTGACATTACAGTTCATTTCG  
 CTGGCAGTGTCCGGAGTCCCCAGAGTGGGAAGTCCGAGGAATTGCTGGATATGTATGGAATTAGTGCCA  
 GACATATCATAGTGCCCTGAAATGCATGTTGCTGAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205218 protein sequence  
 Red=Cloning site Green=Tags(s)

MADAEARAEFPPEARPDRLQVFDQMASRLRIHSIRATCSTSSGHPTSCSSSSEIMSVLFFYIMRYKQS  
 DPENPDNDRFVLAKRLSFVDVATGWLGGGLGVACGMAYTGKYFDRASYRVFCLMSDGESEGSVWEAMAF  
 ASYSLDNLVATFDVNRLLGHSGALPAEHCINIYQRRCEAFGWNTYVVDGRDVEALCQVFWQASQVKHKPT  
 AVVAKTFKGRGTPSIEDAESWHAKPMPRERADAIKLIQSQTSRNLDPQPIEDSPEVNIIDVRMTSP  
 PDYRVGDKIATRKACGLALAKLGYANNRVVLDGDRYSTRFSEIFNKEYPERFIECFMAEQNMVSVALGC  
 ASRGRTIAFASTFAAFLTRAFDHIRIGGLAESNINIIGSHCGVSVGDDGASQMALEDIAMFRTIPKCTIF  
 YPTDAVSTEHAVALAANAKGMCFIRTRPETMVIYTPQERFEIGQAKVLRHCVSDKVTVIGAGITYEAL  
 AADELKQDIFIRVIDLFTIKPLDVATIVSSAKATEGRIITVEDHYPQGGIGEAVCAAVSMDPDIQVHS  
 LAVSGVPQSGKSEELLDMYGISARHIIIVAVKCMLLN

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6536\\_c01.zip](https://cdn.origene.com/chromatograms/mk6536_c01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_012253

**ORF Size:** 1788 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

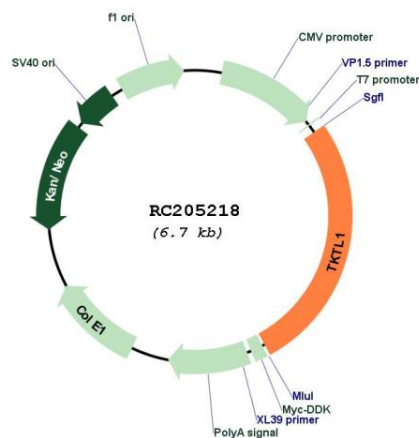
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

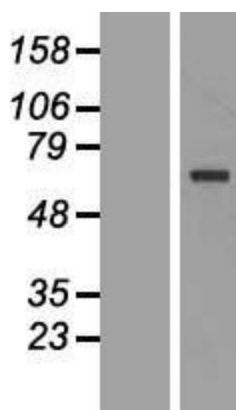
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>RefSeq:</b>	<a href="#">NM_012253.2</a> , <a href="#">NP_036385.2</a>
<b>RefSeq Size:</b>	2652 bp
<b>RefSeq ORF:</b>	1791 bp
<b>Locus ID:</b>	8277
<b>UniProt ID:</b>	<a href="#">P51854</a>
<b>Cytogenetics:</b>	Xq28
<b>Domains:</b>	transketolase, transket_pyr, transketolase_C
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Pentose phosphate pathway
<b>MW:</b>	65.4 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a transketolase that acts as a homodimer and catalyzes the conversion of sedoheptulose 7-phosphate and D-glyceraldehyde 3-phosphate to D-ribose 5-phosphate and D-xylulose 5-phosphate. This reaction links the pentose phosphate pathway with the glycolytic pathway. Variations in this gene may be the cause of Wernicke-Korsakoff syndrome. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2011]

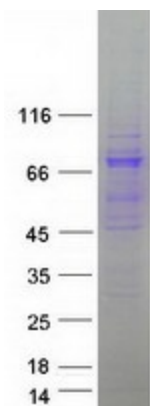
## Product images:



Circular map for RC205218



Western blot validation of overexpression lysate (Cat# [LY415879]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205218 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TKTL1 protein (Cat# [TP305218]). The protein was produced from HEK293T cells transfected with TKTL1 cDNA clone (Cat# RC205218) using MegaTran 2.0 (Cat# [TT210002]).