

Product datasheet for **RG205218**

TKTL1 (NM_012253) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TKTL1 (NM_012253) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TKTL1
Synonyms:	TKR; TKT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG205218 representing NM_012253
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGGATGCTGAGGCGAGGGCTGAGTTCGCGGAGGAGGCCAGACCTGACAGGGGCACCTTGCAGGTGT
 TTCAAGATATGGCCAGCCGCTTGCGAATCCATTCCATCAGGGCCACATGCTCCACGAGCTCCGGCCACCC
 TACATCATGTAGCAGTCTTCTGAGATCATGTCTGTGCTGTTCTTCTACATCATGAGGTACAAGCAGTCA
 GATCCAGAGAATCCGGACAACGACCGATTTGCTCTCGAAAGAGACTGTCGTTTGTGGATGTGGCAACAG
 GATGGCTCGGACAAGGACTGGGAGTTGCATGTGGAATGGCATATACTGGCAAGTACTTCGACAGGGCCAG
 CTACCGGGTGTCTGCCTCATGAGTGTGGCGAGTCTCAGAAGGCTCTGTCTGGGAGGCAATGGCCTTT
 GCTTCTACTACAGTCTGGACAATCTTGTGGCAACCTTTGATGTGAACCGCTGGACACAGTGGTGCAT
 TGCCCGCCGAGCACTGCATAAACATCTATCAGAGGCGCTGCGAAGCCTTTGGGTGGAACACTTATGTGT
 GGACGGCCGGGACGTGGAGGCCTGTGCCAGGTATTCTGGCAGGCTTCTCAGGTGAAGCACAGCCCACT
 GCTGTGGTGGCAAGACCTTCAAGGGCCGGGACCCCAAGTATTGAGGATGCAGAAAGTTGGCATGCAA
 AGCCAATGCCGAGAGAAAGAGCAGATGCCATTATCAAATTAATTGAGAGCCAGATACAGACCAGCAGGAA
 TCTTGACCACAGCCCCCATTGAGGACTCACCTGAAGTCAACATCACAGATGTAAGGATGACCTCTCCA
 CCTGATTACAGAGTTGGTACAAGATAGCTACTCGAAAGCATGCGGTCTGGCTCTGGCTAAGCTGGGCT
 ACGCGAACACAGAGTCGTTGTGCTGGATGGTGAACACAGGACTCTACTTTCTCTGAGATATCAACAA
 GGAGTACCCTGAGCGCTTATCGAGTGCCTTATGGCTGAACAAAACATGGTGAGCGTGGCTCTGGGCTGT
 GCCTCCCGTGGACGACCATTTGCTTTCAGTACACCTTTGCTGCCTTTCTGACTCGAGCATTTGATCACA
 TCCGGATAGGAGGCTCGCTGAGAGCAACATCAACATTATGGTTCCTGACTGTGGGTATCTGTTGGTGA
 CGATGGTCTTCCAGATGGCCCTGGAGGATATAGCCATGTTCCGAACCATTCCCAAGTGCACGATCTTC
 TACCCAATGATGCCGTCTCCACGAGCATGCTGTTGCTCTGGCAGCAATGCCAAGGGGATGTGCTTCA
 TTCGGACCACCCGACCAGAACTATGGTTATTTACACCCACAAGAACGCTTTGAGATCGGACAGGCCAA
 GGTCTCCGCACTGTGTGAGTACAAGGTCACAGTATTGGAGCTGGAATTACTGTGTATGAAGCCTTA
 GCAGCTGTGATGAGCTTTCGAAACAAGATATTTTATCCGTGTCATCGACCTGTTTACCATTAAACCTC
 TGGATGTCGCCACCATCGTCTCCAGTGCAAAAGCCACAGAGGGCCGGATCATTACAGTGGAGGATCACTA
 CCCGCAAGGTGGCATCGGGAAGCTGTCTGCCAGCCGCTCCATGGATCCTGACATTACAGTTCATTTCG
 CTGGCAGTGTCCGGAGTCCCCAGAGTGGGAAGTCCGAGGAATTGCTGGATATGTATGGAATTAGTCCA
 GACATATCATAGTGCCCTGAAATGCATGTTGCTGAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG205218 representing NM_012253
 Red=Cloning site Green=Tags(s)

MADAEARAEFPEEARPDRGTLQVFQDMASRLRIHSIRATCSTSSGHPTSCSSSSEIMSVLFFYIMRYKQS
 DPENPDNDRFVLAKRLSFVDVATGWLQGLGVACGMAYTGKYFDRASYRVFCLMSDGESEGSVWEAMAF
 ASYSLDNLVATFDVNR LGHSGALPAEHCINIYQRRCEAFGWNTYVVDGRDVEALCQVFWQASQVKHKPT
 AVVAKTFKGRGTPSIEDAESWHAKPMPRERADAIKLI ESQIQTSRNLDPQPIEDSPEVNITDVRMTSP
 PDYRVGDKIATRACGLALAKLGYANNRVVLDGDRYSTRFSEIFNKEYPERFIECFMAEQNMVSVALGC
 ASRGRTIAFASTFAAFLTRAFDHIRIGGLAESNINIIGSHCGVSVGDDGASQMALEDIAMFRTIPKCTIF
 YPTDAVSTEHAVALAANAKGMCFIRTRPETMVIYTPQERFEIGQAKVLRHCVSDKVTVIGAGITVYEAL
 AADELKQDIFIRVIDLFTIKPLDVATIVSSAKATEGRITVEDHYPQGGIGEAVCAAVSMDPDIQVHS
 LAVSGVPQSGKSEELLDMYGISARHIIIVAVKCMLLN

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-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 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](#)

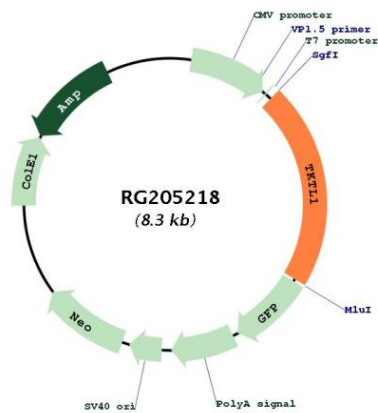
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

- 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_012253.2, NP_036385.2
RefSeq Size:	2530 bp
RefSeq ORF:	1791 bp
Locus ID:	8277
UniProt ID:	P51854
Cytogenetics:	Xq28
Domains:	transketolase, transket_pyr, transketolase_C
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Pentose phosphate pathway
Gene Summary:	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 RG205218