

Product datasheet for **RG228477**

TKTL1 (NM_001145933) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TKTL1 (NM_001145933) 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:

>RG228477 representing NM_001145933
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGGATGCTGAGGCGAGGGCTGAGTCCCGGAGGAGGCCAGACCTGACAGGGGCACCTTGCAGGTGT
 TGCAAGATATGGCCAGCCGCTTGCGAATCCATTCCATCAGGGCCACATGCTCCACGAGCTCCGGCAGTTC
 TTCTGAGATCATGTCTGTGCTGTTCTTCTACATCATGAGGTACAAGCAGTCAGATCCAGAGAATCCGGAC
 AACGACCGATTTGCTCCTCGCAAAGAGACTGTCGTTTGTGGATGTGGCAACAGGATGGCTCGGACAAGGAC
 TGGGAGTTGCATGTGGAATGGCATATACTGGCAAGTACTTCGACAGGGCCAGCTACCGGGTGTCTGCCT
 CATGAGTGATGGCGAGTCTCAGAAGGCTCTGTCTGGGAGGCAATGGCCTTTGCTTCTACTACAGTCTG
 GACAATCTGTGGCAATCTTGTATGTGAACCGCTGGGACACAGTGGTGCATTGCCCGCAGCAGTCTGCA
 TAAACATCTATCAGAGGCGCTCGAAGCCTTTGGGTGGAACACTTATGTGGTGGACGGCCGGACGTGGA
 GGCAGTGTGCCAGGTATTCTGGCAGGCTTCTCAGGTGAAGCACAAGCCACTGCTGTGGTGGCCAAGACC
 TTCAAGGGCCGGGACACCCAAGTATTGAGGATGCAGAAAAGTTGGCATGCAAAGCCAATGCCGAGAGAAA
 GAGCAGATGCCATTATCAAATAATTGAGAGCCAGATACAGACCAGCAGGAATCTTGACCACAGCCCCC
 CATTGAGGACTCACCTGAAGTCAACATCACAGATGTAAGGATGACCTCTCCACCTGATTACAGAGTTGGT
 GACAAGATAGCTACTCGGAAAGCATGCGGTCTGGCTCTGGCTAAGCTGGGCTACGCGAACAACAGAGTGC
 TTGTGCTGGATGGTGACACCAGTACTCTACTTCTCTGAGATATTCAACAAGGAGTACCCTGAGCGCTT
 CATCGAGTGTCTTATGGCTGAACAAAACATGGTGAAGCGTGGCTCTGGGCTGTGCCTCCCGTGGACGGACC
 ATTGCTTTTGTAGCACCTTTGCTGCCTTCTGACTCGAGCATTGTATCATACCCGATAGGAGGCTTCCAG
 CTGAGAGCAACATCAACATTATTGGTCCCACTGTGGGTATCTGTTGGTGACGATGGTGTCTCCAGAT
 GGCCCTGGAGGATATAGCCATGTTCCGAACCAATCCCAAGTGCACGATCTTCTACCAACTGATGCCGTC
 TCCACGGAGCATGCTGTTGCTCTGGCAGCCAATGCCAAGGGGATGTGCTTCATTCCGACCACCCGACCAG
 AAATATGGTTATTTACACCCACAAGAAGCCTTTGAGATCGGACAGGCCAAGGTCTCCGCCACTGTGT
 CAGTGACAAGGTCACAGTATTGGAGCTGGAATTACTGTGTATGAAGCCTTAGCAGCTGCTGATGAGCTT
 TCGAAACAAGATATTTTATCCGTGTATCGACCTGTTTACCATTAAACCTCTGGATGTCGCCACCATCG
 TCTCCAGTGCAAAGCCACAGAGGGCCGGATCATTACAGTGGAGGATCACTACCCGAAGGTGGCATCGG
 GGAAGCTGTCTGCGCAGCCGTCTCCATGGATCCTGACATTAGGTTTATTGCTGGCAGTGTCCGGAGTG
 CCCAGAGTGGGAAGTCCGAGGAATTGCTGGATATGTATGGAATTAGTGCCAGACATATCATAGTGCCG
 TGAATGCATGTTGCTGAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG228477 representing NM_001145933
 Red=Cloning site Green=Tags(s)

MADAEARAEFPPEARPDRTGLQVLQDMASRLRIHSIRATCSTSSGSSSEIMSVLFFYIMRYKQSDPENPD
 NDRFVLAQRSLFVVDVATGWLQQLGVACGMAYTGKYFDRASYRVFCLMSDGESESGSVWEAMAFASYSSL
 DNLVAIFDVNRLGHSGALPAEHCINIYQRRCEAFGWNTYVVDGRDVEALCQVFWQASQVKHKPTAVVAKT
 FKGRGTPSIEDAESWHAKPMPRERADAIKLIQSQTSRNLDPQPIEDSPEVNI TDVRMTSPDYRVG
 DKIATRACGLALAKLGYANNRVVVLGDTRYSTFSEIFNKEYPERFIECFMAEQNMVSVALGCASRGRT
 IAFSTFAAFLTRAFDHIRIGGLAESNINIIGSHCGVSVGDDGASQMALEDIAMFRITPKCTIFYPTDAV
 STEHAVALAANAKGMCFIRTRPETMVIYTPQERFEIGQAKVLRHCVSDKVTVIGAGITVYEALAADEL
 SKQDIFIRVIDLFTIKPLDVATIVSSAKATEGRIITVEDHYPQGGIGEAVCAAVSMDPDIQVHSLAVSGV
 PQSGKSEELLDMYGISARHIIVAVKMLLN

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

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:	<ol style="list-style-type: none">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_001145933.2
RefSeq Size:	2634 bp
RefSeq ORF:	1773 bp
Locus ID:	8277
Cytogenetics:	Xq28
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]