

Product datasheet for **MG218388**

Tktl2 (NM_028927) Mouse Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Tktl2 (NM_028927) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Tktl2 |
| Synonyms: | 4933401I19Rik |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>MG218388 representing NM_028927
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCTTGGCCAGAGATGCCAAGCTGGAGTCGGACACCTTTAGGTGCTTCAGGACGTGGCCAATCGCC
 TCGAATCCACTCAATCAGGGCCACGTGTGCCTGCAGCTCCGGACATCCCACGTCGTGCTGTAGTGTGGC
 AGAGATCATGGCTGTGCTCTTCTCCATACCATGAGGTACAAACAGGCAGACCCAGAACACCCGGACAAT
 GACCGCTTTGCTCTCCAAGGGCCACGCCGCGCCATCTCTATGCGGTTTGGGTGGAGGTGGCCGTA
 TCTGTGAATCGGACTTGTGAACCTGCGAAAAATTCAGTGCACCTGGAGGGTATCCCACCCACGACT
 GTCGTTTGTGATGTGGCAACAGGGTCCCTTGGCAAGGACTGGGTGCTGCCTGTGGAATGGTTACACC
 GGCAAATACTTTGACAAGGCCAGCTACCGCGTGTCTGCCTCATGGGGATGGTGTGCTCGGAAGGTT
 CTGTCTGGGAGGCCTTGGCCTTTGCTTCCCACTACAACCTGGACAATCTCGTGGCAATCTTTGACGTGAA
 CCGCTTGGGACAAAGCGGCACAGCACCCCTAGAGCACTGTACAGCCGTTTATGAGAAGCGCTGCCAAGCG
 TTTGGGTGGAATACTTAGCTGGTGGATGGTCATGATGTTGAAGCTCTCTGCCAGGCCTTTTGAAAGCAG
 CTCAAGTCAAGAATAAGCCTACTGCCCTGATTGCCAAGACCTTCAAGGTTAGAGGTATTCAAAATGTGCA
 GGATGCGGAAAATTGGCATGGAAGCCTATGCCAAAAGACAGAGCTGATGGGATTGTCAAATTAATTGAG
 AATCGGATACAGACAAACCGAAATCTCACACCGAAACCCCAATTGAAGACTCGCCAGGATCAGCATGT
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 GCATCCCCAAGTGCATGTTTTCTATCCAAGTGTGCTGTCTCGACAGAACACGCTGTTTATCTGGCAGC
 CAACACGAAGGGAATGTGCTTATTCTGACCACTCGGCCAAAAACAGCAGTTATTTATACAGCTGAAGAA
 AACTTTGTGATTGGACAGGCCAAGGTGATCCGCCAGAGTGCAGTCGACAAGGTGACAGTTATTGGAGCAG
 GGGTACTCTGCATGAAGCCTTAGTAGCTGCTGAGGAGCTTCTCAACAAGGGATTTTTATTCGTGTCAT
 TGACCTGTTCACTATCAAACCTCTGGATGCTGTACCATTATCCAAAGTGCCAAAGCCACAGGTGGCCAG
 ATCATCACTGTGAAGATCACTACCGAGAAGGTGGCATTGGTGAAGCTGTGTGTGACCCATCTCTAGAG
 AGCCTGACATAGTCGTTGCTCAACTTGACAGTAACAGAAGTACCTCGAAGCGGAAACCTAGCGAGCTACT
 GGATATGTTTGAATCAGTGCCAGACACATTATAGCAGCTGTGAAAGATACCGTAATGAAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG218388 representing NM_028927
 Red=Cloning site Green=Tags(s)

MALARDAKLESDFQVLQDVANRLRIHSIRATCACSSGHPTSCCSVAEIMAVLFFHTMRYKQADPEHPDN
 DRFVLSKGHAAPILYAVWVEVGRICESDLLNLRKIHCDLEGHTPRLSFVDVATGSLGQGLGAACGMAYT
 GK YFDKASYRVFCLMGDESSEGSVWEALAFASHYNLDNLVAIFDVNRLQSGTAPLEHCTAVYEKRCQA
 FGWNTYVVDGHDVEALCQAFWKAQVKNKPTALIAKTFKGRGIPNVEDAENWHGKPMKDRADGIVKLI
 E NRIQTNRNLTPKPIEDSPRISMSNTKMTSLPVYKLGDMIATREAYGLALAKLGQSNQRVIVLDGDTKNS
 TFSEVFKKEHPERFIECFIAEQNMVSVALGCATRGRTIAFVSTFAAFLTRAFDQIRMGAISQTNINFGS
 HCGVSVGEDGPSQMALEDLAMFRSIPNCTVFYPSDAVSTEHAVYLAANTKGMCFIRTTTRPKTAVIYTAEE
 NFVIGQAKVIRQSAVDKVTIGAGVTLHEALVAAEELSQQGIFIRVIDLFTIKPLDAVTIIQSATATGGG
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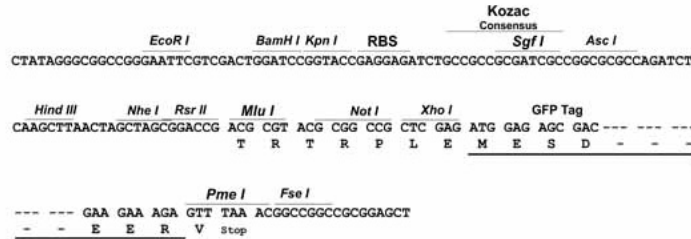
TRTRPLE – GFP Tag – V

Restriction Sites:

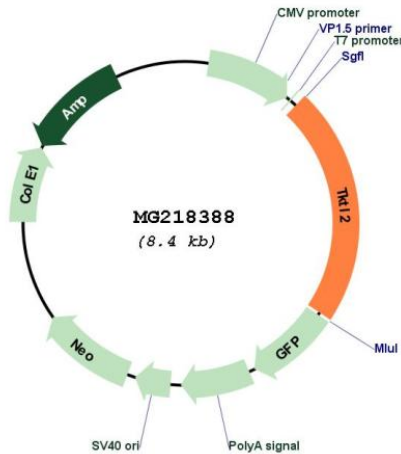
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_028927

ORF Size: 1881 bp

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| 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_028927.3 , NP_083203.2 |
| RefSeq Size: | 2039 bp |
| RefSeq ORF: | 1884 bp |
| Locus ID: | 74419 |
| UniProt ID: | Q9D4D4 |
| Cytogenetics: | 8 B3.1 |
| Gene Summary: | Plays an essential role in total transketolase activity and cell proliferation in cancer cells; after transfection with anti-TKTL1 siRNA, total transketolase activity dramatically decreases and proliferation was significantly inhibited in cancer cells. Plays a pivotal role in carcinogenesis (By similarity).[UniProtKB/Swiss-Prot Function] |