

Product datasheet for **SC309919**

Tankyrase (TNKS) (NM_003747) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tankyrase (TNKS) (NM_003747) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tankyrase
Synonyms:	ARTD5; PARP-5a; PARP5A; PARPL; pART5; TIN1; TINF1; TNKS1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC309919 sequence for NM_003747 edited (data generated by NextGen Sequencing)

ATGGCGGCGCGCTCGCTCTCAGCATCATCACCACCATCATCAACAACAGCTCCAGCCCGCCAGGGG
CTTCAGCGCCGCGCGCCACCTCCTCCCCACTCAGCCCTGGCCTGGCCCCGGGACCACCCAGCCTC
TCCACGCGCCAGCGGCTGGCCCCCTCGCCTCCCGCGGCACGGCTAGCGCTGCCGAGGGGATGGC
AGTCGGGATCCGCGGACAGGCCCGATCCCGGACCAGGTTGACGGTACCAGCTGTTGCAGTACCACCA
GCACAATCTGTACCGTCGCGCGCTCCCGTGGTCCCAGCGGTTTCTACTTCATCTGCCGCTGGGGTCGC
TCCCAACCCAGCGGCAGTGGCAGTAACAATCACCCTCGTCTCTTCTCCCGACTTCTTCTCATCT
TCCTCTCCATCTCCCTGGATCGAGCTTGGCGGAGAGCCCCAGGCGGCGGAGTTAGCAGCACAGCAC
CACTGGGGCTGGGGCAGCAGGACCTGGGACTGGGGTCCCAGCAGTGAGCGGGGCCCTACGGAAGTGT
GGAGGCTGTGCAATGGGACGTGTCCCGGTAAGAGACTGGTGGACGCGGCAACGTAATGCAAG
GACATGGCCGGCCGGAAGTCTTCTCCCCTGCACCTCGCTGCAGGTTTGGGAAGGAAGGATGTTGTAGAAC
ACTTACTACAGATGGGTGCTAATGTCCACGCTCGTGATGATGGAGGTCTCATCCCGCTTCATAATGCCTG
TTCTTTTGGCCATGCTGAGGTTGTGAGTCTGTTATTGTGCCAAGGAGCTGATCCAATGCCAGGGATAAC
TGGAATATACACCTCTGCATGAAGCTGCTATTAAGGAAGATCGATGTGTGCATTGTGCTGCTGCAGC
ACGGAGCTGACCCAAACATTGGAACACTGATGGGAAATCAGCCCTGGACCTGGCAGATCCTTCAGCAA
AGCTGTCTTACAGGTGAATACAAGAAAGACGAACCTCTAGAAGCTGCTAGGAGTGGTAATGAAGAAAA
CTAATGGCTTTACTGACTCCTCTAAATGTGAATTGCCATGCAAGTGATGGGCGAAAGTCGACTCCTTTAC
ATCTAGCAGCGGCTACAACAGAGTTCAATAGTTCAGCTTCTTCTCAGCATGGTGTGCTGATGTTTCATGC
AAAAGACAAAGGTGGACTTGTGCTCTTCATAATGCATGTTTCATATGGACATTATGAAGTCACAGAACTG
CTACTAAGCATGGAGCTTGTGTTAATGCCATGGATCTCTGGCAGTTTACTCCACTGCACGAGGCTGCTT
CCAAGAACCGTGTAGAAGTCTGCTCTTTGTTACTTAGCCATGGCGCTGATCCTACGTTAGTCAACTGCCA
TGGCAAAAGTGTGTGATATGGCTCCAACCTCCGAGCTTAGGGAGAGATTGACTTATGAATTTAAAGT
CATTCTTTACTACAAGCAGCCAGAGAAGCAGACTTAGCTAAAGTTAAAAAACACTCGCTCTGGAATCA
TTAATTTCAAACAACCGCAGTCTCATGAAACAGCACTGCACTGTGCTGTGGCCTCTCTGCATCCCAACG



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TAAACAAGTGACAGAATTGTTACTTAGAAAAGGAGCAAATGTTAATGAAAAAATAAGATTTTCATGACT
 CCCCTACATGTTGCAGCCGAAAGAGCCCATATGATGTCATGGAAGTTCTGCATAAGCATGGCGCCAAGA
 TGAATGCACTGGACACCTTGGTCAGACTGCTTTGCATAGAGCCGCCCTAGCAGGCCACCTGCAGACCTG
 CCGCCTCCTGCTGAGTTACGGCTCTGACCCCTCCATCATCTCCTTACAAGGCTTCACAGCAGCACAGATG
 GGCAATGAAGCAGTGCAGCAGATTCTGAGTGAGAGTACACCTATACGTACTTCTGATGTTGATTATCGAC
 TCTTAGAGGCATCTAAAGCTGGAGACTTGAAAAGTGTGAAGCAACTTTGCAGCTCTCAAATGTGAATTG
 TAGAGACTTAGAGGGCCGGCATTCCACGCCCTTACACTTCGCAGCAGGCTACAACCGCGTGTCTGTTGTA
 GAGTACCTGCTACACCACGGTGCCGATGTCCATGCCAAAAGACAAGGGTGGCTTGGTGCCCTTCATAATG
 CCTGTTTCATATGGACACTATGAGGTGGCTGAGCTTTTAGTAAGGCATGGGCTTCTGTCAATGTGGCGGA
 CTTATGGAATTTACCCCTCTCCATGAAGCAGCAGCTAAAGGGAAGTATGAAATCTGCAAGCTCCTTTTA
 AAACATGGAGCAGATCCAACTAAAAGAAGCAGAGATGGAATACACCTTTGGATTTGGTAAAGGAAGGAG
 ACACAGATATTCAGGACTTACTGAGAGGGGATGCTGCTTTGTTGGATGCTGCCAAGAAGGCTGCCTGGC
 AAGAGTGCAGAAGCTCTGTACCCAGAGAATATCAACTGCAGAGACACCCAGGGCAGAAATCAACCCCT
 CTGCACCTGGCAGCAGGCTATAATAACCTGGAAGTAGCTGAATATCTTCTAGAGCATGGAGCTGATGTTA
 ATGCCCAGGACAAGGGTGGTTTAAATCCTCTTCATAATGCGGCATCTTATGGGCATGTTGACATAGCGGC
 TTTATTGATAAAATACAACACGTGTGTAATGCAACAGATAAGTGGGCGTTTACTCCCCTCCATGAAGCA
 GCCCAGAAAGGAAGGACGAGCTGTGCGCCCTCCTCCTAGCGCATGGTGCAGACCCACCATGAAGAACC
 AGGAAGGCCAGACGCCTCTGGATCTGGCAACAGCTGACGATATCAGAGCTTTGCTGATAGATGCCATGCC
 CCCAGAGGCCCTTACCTACCTGTTTTAAACCTCAGGCTACTGTAGTGAGTGCCCTCTCTGATCTCACCAGCA
 TCCACCCCTCCTGCCTCTCGGTGCCAGCAGCATAGACAACCTCACTGGCCCTTTAGCAGGGTTGGCCG
 TAGGAGGAGCCTCAATGCAGGGGATGGCGCCGCGGAACAGAAAGGAAGGAAGGAGAAGTTGCTGGTCT
 TGACATGAATATCAGCCAATTTCTAAAAAGCCTTGCCCTTGAACACCTTCGGGATATCTTTGAAACAGAA
 CAGATTACACTAGATGTGTTGGCTGATATGGGTCATGAAGAGTTGAAAGAAATAGGCATCAATGCATATG
 GGCACCGCCACAAATTAATCAAAGGAGTAGAAAGACTCTTAGGTGGACAACAAGGCACCAATCCTTATTT
 GACTTTTCACTGTGTTAATCAGGAACGATTTTGCTGGATCTTGCTCCAGAAGATAAAGAATATCAGTCA
 GTGGAAGAAGAGATGCAAGTACTATTCGAGAACACAGAGATGGTGGTAATGCTGGCGGCATCTTCAACA
 GATACAATGTCATTGCAATTCAAAAAGTTGTCAACAAGAAGTTGAGGGAGCGTTCTGCCACCGACAGAA
 GGAAGTGTCTGAGGAGAATCACAACCATCACAATGAGCGCATGTTGTTTCATGTTCTCCTTTCATTAAT
 GCCATTATTCATAAAGGGTTTGATGAGCGACATGCATACATAGGAGGAATGTTTGGGGCCGGGATTTATT
 TTGCTGAAAACCTCTCAAAAAGCAACCAATATGTTTATGGAATTGGAGGAGGAACAGGCTGCCCTACACA
 CAAGGACAGGTCATGCTATATATGTCACAGACAAATGCTCTTCTGTAGAGTGACCCTTGGGAAATCCTTT
 CTGCAGTTTAGCACCATAAAAATGGCCACGCGCTCCAGGGCACCCTCAGTCATTGGTAGACCGAGCG
 TCAATGGGCTGGCATATGCTGAATATGTCATCTACAGAGGAGAACAGGCATACCCAGAGTATCTTATCAC
 TTACCAGATCATGAAGCCAGAAGCCCTTCCAGACCGCAACAGCCGAGAGCAGAAGACCTAG

Clone variation with respect to NM_003747.2

10:g=>t 248:a=>c 522:t=>a 600:a=>g 1386:g=>a 1686:a=>g 2283:g=>a 3002:g=>a 3798:a=>g

Restriction Sites:

Please inquire

ACCN:

NM_003747

Insert Size:

4200 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: The ORF of this clone has been fully sequenced and found to contain one SNP compared with NM_003747.1.

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_003747.1](#), [NP_003738.1](#)

RefSeq Size: 9599 bp

RefSeq ORF: 3984 bp

Locus ID: 8658

UniProt ID: [O95271](#)

Cytogenetics: 8p23.1

Domains: SAM, ANK

Gene Summary:

Poly-ADP-ribosyltransferase involved in various processes such as Wnt signaling pathway, telomere length and vesicle trafficking (PubMed:10988299, PubMed:11739745, PubMed:16076287, PubMed:19759537, PubMed:21478859, PubMed:22864114, PubMed:23622245, PubMed:25043379). Acts as an activator of the Wnt signaling pathway by mediating poly-ADP-ribosylation (PARsylation) of AXIN1 and AXIN2, 2 key components of the beta-catenin destruction complex: poly-ADP-ribosylated target proteins are recognized by RNF146, which mediates their ubiquitination and subsequent degradation (PubMed:19759537, PubMed:21478859). Also mediates PARsylation of BLZF1 and CASC3, followed by recruitment of RNF146 and subsequent ubiquitination (PubMed:21478859). Mediates PARsylation of TERF1, thereby contributing to the regulation of telomere length (PubMed:11739745). Involved in centrosome maturation during prometaphase by mediating PARsylation of HEPACAM2/MIK1 (PubMed:22864114). May also regulate vesicle trafficking and modulate the subcellular distribution of SLC2A4/GLUT4-vesicles (PubMed:10988299). May be involved in spindle pole assembly through PARsylation of NUMA1 (PubMed:16076287). Stimulates 26S proteasome activity (PubMed:23622245).[UniProtKB/Swiss-Prot Function]