

Product datasheet for RC210517

Tankyrase (TNKS) (NM_003747) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tankyrase (TNKS) (NM_003747) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tankyrase
Synonyms:	ARTD5; PARP-5a; PARP5A; PARPL; pART5; TIN1; TINF1; TNKS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210517 representing NM_003747 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCGCTCGCTCGCTCTCAGCATCATCACCACCATCATCAACAACAGCTCCAGCCCGCCAGGGG
CTTCAGCGCCGCCCGCCACCTCCTCCCCACTCAGCCCTGGCCTGGCCCGGGGACCACCCAGCCTC
TCCACGCGCCAGCGCCCTGGCCCTTCGCTCCCGCGGCACGGCTAGCGCTGCCGAGGGGATGGC
AGTCGGGATCCGCCGACAGGCCCGATCCCGGACCCGGTTGACGGTACCAGCTGTTGCAGTACCACCA
GCACAATCTGTACCGTCGCCCGCTCCCGTGGTCCCAGCGGTTTCTACTTCATCTGCCGCTGGGTCGC
TCCAACCCAGCCGGCAGTGGCAGTAACAATTCACCGTCGTCCTTCTTCCCGACTTCTCTCATCT
TCCTCTCCATCCTCCCCTGGATCGAGCTTGGCGGAGAGCCCGAGGCGCCGGAGTTAGCAGCACAGCAC
CACTGGGGCTGGGGCAGCAGGACCTGGGACAGGGTCCCAGCAGTGAGCGGGGCCCTACGGAACTGCT
GGAGGCCGTGCGCAATGGGGACGTGCCCGGTAAAGAGGCTGGTGGACGCGGAAACGTAATGCAAAAG
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ACTTACTACAGATGGGTGCTAATGTCCACGCTCGTGATGATGGAGGTCATCCCGCTTCATAATGCCTG
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CCAAGAACCGTGTAGAAGTCTGCTCTTTGTTACTTAGCCATGGCCTGATCCTACATTAGTCAACTGCCA
TGCAAAAAGTGTGATATGGCTCCTCAGGCTTAGGGAGAGATTGACTTATGAATTTAAAGT



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CATTCTTTACTACAAGCAGCCAGAGAAGCAGACTTAGCTAAAGTTAAAAAACACTCGCTCTGGAATCA
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TTACCAGATCATGAAGCCAGAAGCCCTTCCCAGACCGCAACAGCCGAGAGCAGAAGACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence: >RC210517 representing NM_003747
 Red=Cloning site Green=Tags(s)

MAASRRSQHHHHHQQQLQPAGASAPPPPPPLSPGLAPGTPASPTASGLAPFASPRHGLALPEGDG
 SRDPPDRPRSPDPVDGTSCCSTTSTICTVAAAPVVPVAVSTSSAAGVAPNPAGSGSNNSPSSSSPTSSSS
 SSPSSPGSSLAESPEAAGVSSTAPLGPAAAGPGTGVPAVSGALRELLEACRNGDYSRVKRLVDAANVNAK
 DMAGRKSSPLHFAAGFGRKDVEHELLQMGANVHARDDDGGLIPLHNACSFGHAENVSLLLCQGADPNARDN
 WNYTPLHEAAIKGKIDVCIVLLQHGADPNIRNTDGKSALDLADPSAKAVLTGEYKDELLEAARSGNEEK
 LMALLTPLNVNCHASDGRKSTPLHLAAGYNRVRIVQLLLQHGADVHAKDKGGLVPLHNACSYGHYEVTEL
 LLKHGACVNMADLWQFTPLHEAASKNRVEVCSLLL SHGADPTLVNCHGKSAVDMAPTELRERLTYEFKG
 HSLLQAAREADLAKVKKTLALEIINFKQPQSHETALHCAVASLHPKRKQVTELLLRKGANVNEKNKDFMT
 PLHVAERAHNDVMEVLHKHGAKMNALDTLGQALHRAALAGHLQTCRLLL SYGSDPSIIISLQGFTAAQM
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 EYLLHHGADVHAKDKGGLVPLHNACSYGHYEAELLVRHGASVNVADLWKFTPLHEAAAKGKYEICKLLL
 KHGADPTKKNRDGNTPLDLVKEGDTDIQDLLRGDAALLDAAKKGCLARVQKLCCTPENINCRDTQGRNSTP
 LHLAGYNNLEVAEYLLLEHGADVNAQDKGGLIPLHNAASYGHVDIAALLIKYNTCVNATDKWAFTPLHEA
 AQKGRQLCALLLAHGADPTMKNQEGQTPLDLATADDIRALLIDAMPEALPTCFKQPATVVSASLISPA
 STPSCLSAASSIDNLTGPLAELAVGGASNAGDGAAGTERKEGEVAGLDMNISQFLKSLGLEHLRDLIFETE
 QITLDVLAADMGHEELKEIGINAYGHRHKLKIGVERLLGGQQGTNPYLTFHCVNQGTILLDLAPEDKEYQS
 VEEEMQSTIREHRDGGNAGGIFNRYNVIRIQKVVNKKLRERFCHRQKEVSEENHNHNNERMLFHGSPFIN
 AIIHKGFDERHAYIGGMFAGIYFAENSSKSNQYVYIGGGTGCPHDKRSCYICHRQMLFCRVTLGKSF
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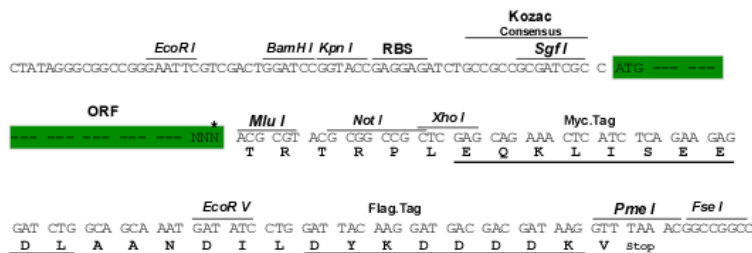
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_003747

ORF Size: 3981 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_003747.2](#), [NP_003738.2](#)

RefSeq Size: 9599 bp

RefSeq ORF: 3984 bp

Locus ID: 8658

UniProt ID: [O95271](#)

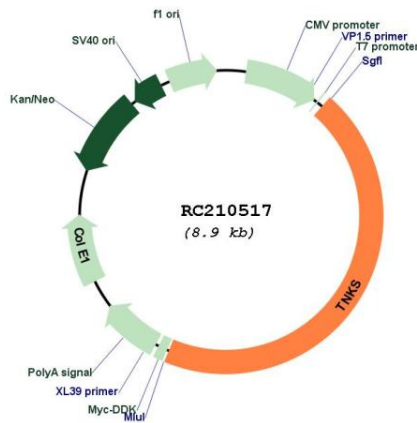
Cytogenetics: 8p23.1

Domains: SAM, ANK

MW: 141.9 kDa

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/MIKI (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]

Product images:


Circular map for RC210517