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Product datasheet for RC221827

OGG1 (NM_016828) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OGG1 (NM_016828) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OGG1
Synonyms:	HMMH; HOGG1; MUTM; OGH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC221827 representing NM_016828
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTGCCCGCGCGCTTCTGCCCAGGCGCATGGGGCATCGTACTCTAGCCTCCACTCCTGCCCTGTGGG
CCTCCATCCCGTGCCCTCGCTCTGAGCTGCGCCTGGACCTGGTTCTGCCTTCTGGACAATCTTTCCGGTG
GAGGGAGCAAAGTCCTGCACACTGGAGTGGTGTACTAGCGGATCAAGTATGGACACTGACTCAGACTGAG
GAGCAGCTCCACTGCACTGTGTACCGAGGAGACAAGAGCCAGGCTAGCAGGCCCACACCAGACGAGCTGG
AGGCCGTGCGCAAGTACTTCCAGCTAGATGTTACCCTGGCTCAACTGTATCACCACTGGGGTTCCGTGGA
CTCCCACTTCCAAGAGGTGGCTCAGAAATTCCAAGGTGTGCGACTGCTGCGACAAGACCCCATCGAATGC
CTTTTCTCTTTTATCTGTTCCTCCAACAACAACATCGCCCGCATCACTGGCATGGTGGAGCGGCTGTGCC
AGGCTTTTGGACCTCGGCTCATCCAGCTTGATGATGTCACCTACCATGGCTTCCCCAGCCTGCAGGCCCT
GGCTGGGCCAGAGGTGGAGGCTCATCTCAGGAAGCTGGGCCTGGGCTATCGTGCCCGTTACGTGAGTGCC
AGTGCCCGAGCCATCCTGGAAGAACAGGGCGGGCTAGCCTGGCTGCAGCAGCTACGAGAGTCCTCATATG
AGGAGGCCCACAAGGCCCTCTGCATCCTGCCTGGAGTGGGCACCAAGGTGGCTGACTGCATCTGCCTGAT
GGCCCTAGACAAGCCCCAGGCTGTGCCCGTGGATGTCCATATGTGGCACATTGCCCAACGTGACTACAGC
TGGCACCCTACCACGTCCCAGGCGAAGGGACCGAGCCCCCAGACCAACAAGGAACTGGGAAACTTTTTCC
GGAGCCTGTGGGGACCTTATGCTGGCTGGGCCCAAGCGCTCTGTCAGGTCATCACCACTTTTATGACCTT
TCTCGGACCCCATAGGCTGGATCAGATGCCTCCTGAAGAATTACAGACTTCTTCCTCTAGACTTGGAGGG
CCTCCTTGGCAATGCATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC221827 representing NM_016828
Red=Cloning site Green=Tags(s)

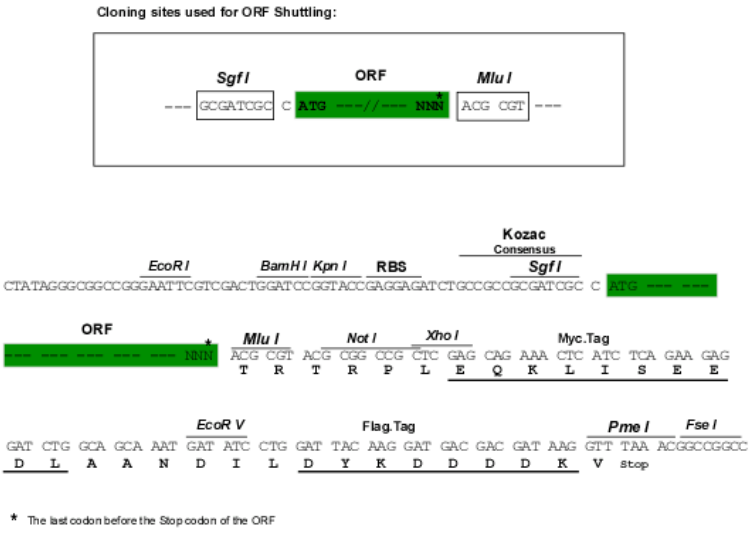
MPARALLPRRMGHRTLASTPALWASIPCPRSELRLDLVLPSGQSFRWREQSPAHWSGVLADQVWTLTQTE
EQLHCTVYRGDKSQASRPTPDELEAVRKYFQLDVTLAQLYHHWGSVDSHFQEVAQKFQGVRLLRQDPIEC
LFSFICSSNNNIARITGMVERLCQAFGPRLIQLDDVTYHGFPSLQALAGPEVEAHLRKLGLGYRARYVSA
SARAILEEQGGLAWLQQLRESSYEEAHKALCILPGVGTKVADCICLMALDKPQAVPVDVHMWHIAQRDYS
WHPTTSQAKGPSPQTNKELGNFFRSLWGPYAGWAQALCQVITTFMTFLGPHRLDQMPPEELQTSSSRLGG
PPWQCI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8054_b03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016828

ORF Size: 1068 bp

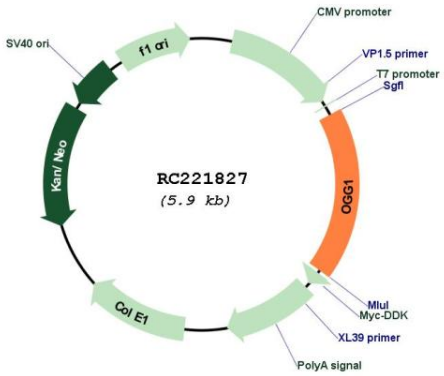
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

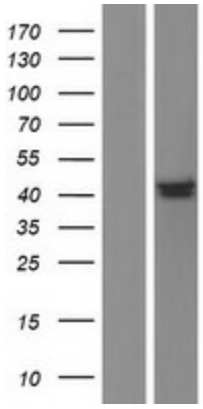
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	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_016828.2, NP_058437.1
RefSeq Size:	2210 bp
RefSeq ORF:	1071 bp
Locus ID:	4968
UniProt ID:	O15527
Cytogenetics:	3p25.3
Protein Families:	Druggable Genome
Protein Pathways:	Base excision repair
MW:	39.9 kDa
Gene Summary:	This gene encodes the enzyme responsible for the excision of 8-oxoguanine, a mutagenic base byproduct which occurs as a result of exposure to reactive oxygen. The action of this enzyme includes lyase activity for chain cleavage. Alternative splicing of the C-terminal region of this gene classifies splice variants into two major groups, type 1 and type 2, depending on the last exon of the sequence. Type 1 alternative splice variants end with exon 7 and type 2 end with exon 8. All variants share the N-terminal region in common, which contains a mitochondrial targeting signal that is essential for mitochondrial localization. Many alternative splice variants for this gene have been described, but the full-length nature for every variant has not been determined. [provided by RefSeq, Aug 2008]

Product images:



Circular map for RC221827



Western blot validation of overexpression lysate (Cat# [LY413815]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221827 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).