

Product datasheet for RC221784

OGG1 (NM_016826) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OGG1 (NM_016826) 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:	>RC221784 representing NM_016826 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCCCGCGCTTCTGCCAGGCGCATGGGGCATCGTACTCTAGCCTCCACTCCTGCCCTGTGGG
CCTCCATCCCGTGCCTCGCTCTGAGCTGCGCCTGGACCTGGTTCTGCCTTCTGGACAATCTTCCGGTG
GAGGGAGCAAAGTCTGCACACTGGAGTGGTGTACTAGCGGATCAAGTATGGACTGACTCAGACTGAG
GAGCAGCTCCACTGCACTGTGTACCGAGGAGACAAGGCCAGGCTAGCAGGCCACACCAGACGAGCTGG
AGGCCGTGCGCAAGTACTTCCAGCTAGATGTTACCTGGCTCACTGTATCACCCTGGGTTCCGTGGA
CTCCACTTCCAAGAGGTGGCTCAGAAATTCGAAGGTGTGCGACTGCTGCGACAAGACCCATCGAATGC
CTTTTCTTTTTATCTGTTCTCCAACAACAACATCGCCCGCATCACTGGCATGGTGGAGCGGCTGTGCC
AGGCTTTTGGACCTCGGCTCATCCAGCTTGATGATGTCACCTACCATGGCTTCCCAGCCTGCAGGCCCT
GGCTGGGCCAGAGGTGGAGGCTCATCTCAGGAAGCTGGGCTGGGCTATCGTGCCCGTTACGTGAGTGCC
AGTGCCCGAGCCATCCTGGAAGAACAGGGCGGGCTAGCCTGGCTGCAGCAGCTACGAGAGTCCATATG
AGGAGGCCACAAGGCCCTCTGCATCCTGCCTGGAGTGGGCACCAAGGGCCTCCTGGCAATGCATTTGA
TGGCCACCAGCTTCTGCGTCTCTTATCTTCTGCCAGGATCACCTCCGAGAAGGCCCCCTATCGGGAGA
GGGATTACAAGGTGAAGAAGTGAACCCAGCTTCCCTCCAGCCTCTCCTCCATCCCTATGGGTTCT
GTGACCACTGCTGGACCAAGGACGTGGATGACCCTCCCTAGTCACTATCCATCCCTGGCTCCAGAGA
TGGTCACATGACCCAGGCTGGCCAGTCAAAGTAGTCTCTCCCTGGCCACAGTAATTGGTCATGTGATG
CAAGCCAGCTTACTAGCACTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC221784 representing NM_016826
Red=Cloning site Green=Tags(s)

MPARALLPRRMGHRTLASTPALWASIPCPRSELRLDLVLPSTGQSFWRREQSPAHWGVLADQVWTLTQTE
 EQLHCTVYRGDKSQASRPTPDELEAVRKYFQLDVTLAQLYHHWGSVDSHFQEVAQKFQGVRLLRQDPIEC
 LFSFICSSNNNIARITGMVERLCQAFGPRLIQLDVITYHGFPSTLQALAGPEVEAHLRKLGLYRARIYSA
 SARAILEEQGLAWLQQLRESSYEEAHKALCILPGVGTGKLLGNAFDGHQLLRPLIFCDHLREGPPIGR
 GDSQGEELPQLPSSLSSIPYGFCDHCWTKDVEDDPLVTHPSGSRDGHMTQAWPVKVVSPLATVIGHVM
 QASLLAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8054_b11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_016826

ORF Size: 1071 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_016826.2](#), [NP_058434.1](#)

RefSeq Size: 1909 bp

RefSeq ORF: 1074 bp

Locus ID: 4968

UniProt ID: [O15527](#)

Cytogenetics: 3p25.3

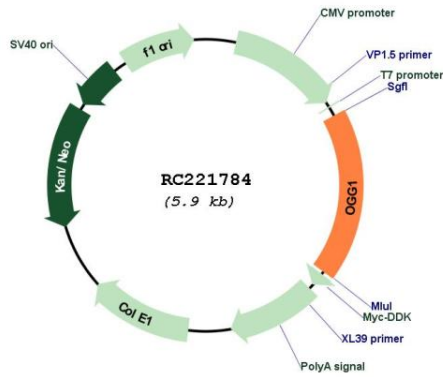
Protein Families: Druggable Genome

Protein Pathways: Base excision repair

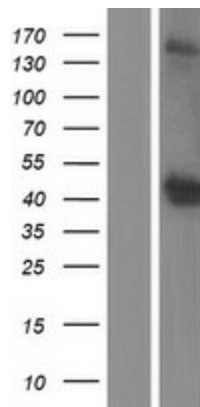
MW: 39.5 kDa

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 RC221784



Western blot validation of overexpression lysate (Cat# [LY413813]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221784 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).