

## Product datasheet for **RC221725**

### **OGG1 (NM\_016821) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	OGG1 (NM_016821) 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)



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**ORF Nucleotide Sequence:**

>RC221725 representing NM\_016821  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCTGCCCGCGCCTTCTGCCAGGCGCATGGGCATCGTACTCTAGCCTCCACTCCTGCCCTGTGGG  
 CCTCCATCCCGTGCCCTCGCTCTGAGCTGCGCCTGGACCTGGTTCTGCCTTCTGGACAATCTTCCGGTG  
 GAGGGAGCAAAGTCTGCACACTGGAGTGGTGTACTAGCGGATCAAGTATGGACACTGACTCAGACTGAG  
 GAGCAGCTCCACTGCACTGTGTACCGAGGAGACAAGAGCCAGGCTAGCAGGCCACACCAGACGAGCTGG  
 AGGCCGTGCGCAAGTACTTCCAGCTAGATGTTACCCTGGCTCACTGTATCACCCTGGGTTCCGTGGA  
 CTCCCCTTCCAAGAGGTGGCTCAGAAATTCGAAGGTGTGCGACTGCTGCGACAAGACCCCATCGAATGC  
 CTTTTCTTTTTATCTGTTCTCCAACAACAACATCGCCCGCATCACTGGCATGGTGGAGCGGCTGTGCC  
 AGGCTTTTGGACCTCGGCTCATCCAGCTTGTATGATGTACCTACCATGGCTTCCCAGCCTGCAGGCCCT  
 GGCTGGGCCAGAGGTGGAGGCTCATCTCAGGAAGCTGGGCTGGCTATCGTGCCGTTACGTGAGTGCC  
 AGTGCCCGAGCCATCCTGGAAGAACAGGGCGGGCTAGCCTGGCTGCAGCAGCTACGAGAGTCCATATG  
 AGGAGGCCCAAGGCCCTCTGCATCCTGCCTGGAGTGGGCACCAAGGTGGCTGACTGCATCTGCCTGAT  
 GGCCCTAGACAAGCCCCAGGCTGTGCCCGTGGATGTCCATATGTGGCACATTGCCCAACGTGACTACAGC  
 TGGCACCTACCAGTCCCAGGCGAAGGGACCGAGCCCCAGACCAACAAGGAAGTGGGAAACTTTTTCC  
 GGAGCCTGTGGGACCTTATGCTGGTGGGCCCAAGCGGGCTCCTTGGCAATGCATTTGATGGCCACCA  
 GCTTCTGCGTCTCTTATCTTCTGCCAGGATCACCTCCGAGAAGGCCCCCTATCGGGAGAGGGGATTCA  
 CAAGGTGAAGAACTGGAACCCAGCTTCCCTCCAGCCTCTCCTCCATTCCCTATGGGTTCTGTGACCACT  
 GCTGGACCAAGGACGTGGATGACCCTCCCTAGTCACTCATCCATCCCCTGGCTCCAGAGATGGTCACAT  
 GACCCAGGCCTGGCCAGTCAAAGTAGTCTCTCCCTGGCCACAGTAATTGGTCATGTGATGCAAGCCAGC  
 TTAGTACTGCACTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC221725 representing NM\_016821  
 Red=Cloning site Green=Tags(s)

MPARALLPRRMGHRTLASTPALWASIPCRSELRLDLVLPSSQSFWRREQSPAHWSGVLADQVWTLTQTE  
 EQLHCTVYRGDKSASRPTPDELEAVRKYFQLDVTLAQLYHHWGSVDSHFQEVAQKFQGVRLLRQDPIEC  
 LFSFICSSNNNIARITGMVERLCQAFGPRLIQDDVTYHGFPSLQALAGPEVEAHLRKLGLGYRARYVSA  
 SARAILEEQGLAWLQQLRESSYEEAHKALCILPGVGTKVADCICLMALDKPQAVPVDVHMWHIAQRDYS  
 WHPTTSQAKGSPSPQTNKELGNFRSLWGPYAGWAQAGLLGNAFDGHQLLRPLIFCQDHLREGPPIGRGDS  
 QGEELEPQLPSSLSSIPYGFCDHCWTKDVEDPPLVTHPSGSRDGHMTQAWPVKVVSPLATVIGHVMQAS  
 LLAL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg3144\\_a01.zip](https://cdn.origene.com/chromatograms/mg3144_a01.zip)

**Restriction Sites:**

Sgfl-Mlul

## Cloning Scheme:



ACCN: NM\_016821

ORF Size: 1272 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\\_016821.2](#), [NP\\_058214.1](#)

RefSeq Size: 2108 bp

RefSeq ORF: 1275 bp

Locus ID: 4968

UniProt ID: [O15527](#)

Cytogenetics: 3p25.3

**Domains:** HHH, ENDO3c

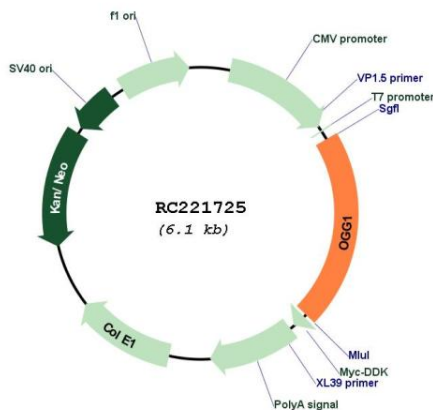
**Protein Families:** Druggable Genome

**Protein Pathways:** Base excision repair

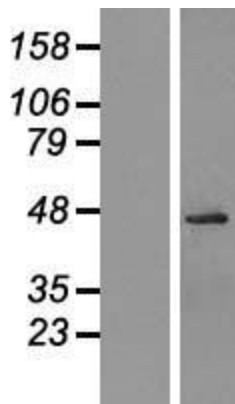
**MW:** 47.1 kDa

**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 RC221725



Western blot validation of overexpression lysate (Cat# [LY413811]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221725 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).