

## Product datasheet for **RG221876**

### OGG1 (NM\_016829) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OGG1 (NM_016829) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OGG1
Synonyms:	HMMH; HOGG1; MUTM; OGH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221876 representing NM_016829 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCTGCCCGCGCTTCTGCCAGGCGCATGGGGCATCGTACTCTAGCCTCCACTCCTGCCCTGTGGG  
CCTCCATCCCGTGCCCTCGCTCTGAGCTGCGCCTGGACCTGGTTCTGCCTTCTGGACAATCTTCCGGTG  
GAGGGAGCAAAGTCTGCACACTGGAGTGGTGTACTAGCGGATCAAGTATGGACACTGACTCAGACTGAG  
GAGCAGCTCCACTGCACTGTGTACCGAGGAGACAAGAGCCAGGCTAGCAGGCCACACCAGACGAGCTGG  
AGGCCGTGCGCAAGTACTTCCAGCTAGATGTTACCTGGCTCACTGTATCACCCTGGGTTCCGTGGA  
CTCCCACTTCCAAGAGGTGGCTCAGAAATTCGAAGGTGTGCGACTGCTGCGACAAGACCCATCGAATGC  
CTTTTCTTTTTATCTGTTCTCCAACAACAACATCGCCCGCATCACTGGCATGGTGGAGCGGCTGTGCC  
AGGCTTTTGGACCTCGGCTCATCCAGCTTGATGATGTCACCTACCATGGCTTCCCAGCCTGCAGGCCCT  
GGCTGGGCCAGAGGTGGAGGCTCATCTCAGGAAGCTGGGCTGGGCTATCGTGCCGTTACGTGAGTGCC  
AGTGCCCGAGCCATCCTGGAAGAACAGGGCGGGCTAGCCTGGCTGCAGCAGCTACGAGAGTCTCATATG  
AGGAGGCCACAAGGCCCTCTGCATCCTGCCTGGAGTGGGCACCAAGGTGGCTGACTGCATCTGCCTGAT  
GGCCCTAGACAAGCCCCAGGCTGTGCCGTGGATGTCCATATGTGGCACATTGCCCAACGTGACTACAGC  
TGGCACCTACCACGTCCAGGCCAAGGGACCGAGCCCCAGACCAACAAGGAAGTGGAAACTTTTTC  
GGAGCCTGTGGGACCTTATGCTGGCTGGGCCAAGCGGCTGGATCAGATGCCTCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG221876 representing NM\_016829  
Red=Cloning site Green=Tags(s)

MPARALLPRRMGHRTLASTPALWASIPCPRSELRLDLVLPSPGQSFWRREQSPAHWGVLADQVWTLTQTE  
 EQLHCTVYRGDKSQASRPTPDELEAVRKYFQLDVTLAQLYHHWGSVDSHFQEVAQKFQGVRLLRQDPIEC  
 LFSFICSSNNNIARITGMVERLCQAFGPRLIQLDDVTYHGFP SLQALAGPEVEAHLRKLGLGYRARYVSA  
 SARAILEEQGGLAWLQQLRESSYEEAHKALCILPGVGTKVADCI CLMALDKPQAVPVDVHMWHIAQRDYS  
 WHPTTSQAKGSPQTNKELGNFRSLWGPYAGWAQAAGSDAS

TRTRPLE - GFP Tag - V

**Restriction Sites:**

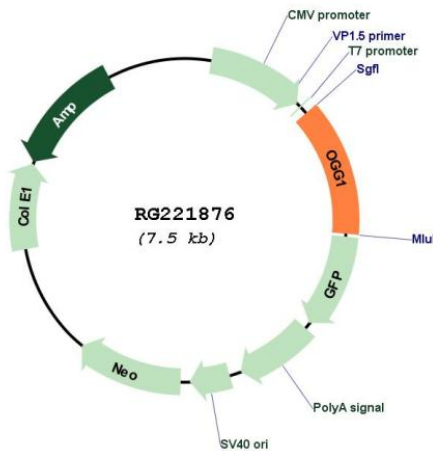
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_016829

**ORF Size:** 966 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_016829.2</a> , <a href="#">NP_058438.1</a>
<b>RefSeq Size:</b>	2163 bp
<b>RefSeq ORF:</b>	969 bp
<b>Locus ID:</b>	4968
<b>UniProt ID:</b>	<a href="#">O15527</a>
<b>Cytogenetics:</b>	3p25.3
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Base excision repair
<b>Gene Summary:</b>	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]