

## Product datasheet for **RG219080**

### OPLAH (NM\_017570) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OPLAH (NM_017570) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OPLAH
Synonyms:	5-Opase; OPLA; OPLAHD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG219080 representing NM_017570 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCAGCCCCGAGGGCCGCTTCCACTTTGCCATCGACCGTGGGGGTACCTTCACAGACGTCCTTGCCC  
AGTGCCAGGGGGGCACGTGCGGGTCTTAAACTGCTCTCAGAGGACCCTGCCAACTATGCGGACGCGCC  
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GCCATCCGTGCACTCACGAGGCAAGAGGCCATGACCCCTCAGCCCATGTGCTGGCCTGCTTTGGGGGA



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GCTGGTGGGCAGCATGCATGTGCCATCGCCCGGCCCTGGGCATGGACACGGTGCACATCCACAGGCACA  
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CCACCGCCGGGTGCGCCCCGCAAGCACTGGCCTTCCCGAGCACGGCAGCGTCTATGAGTATCGCCGGG  
CCAGGAGGCCGTG

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG219080 representing NM\_017570  
 Red=Cloning site Green=Tags(s)

MGSPEGRFHFAIDRGGTFTDVFACQCPGGHVRVLKLLSEDPANYADAPTEGIRRILEQEAGMLLPRDQPLD  
 SSHIASIRMGTTVATNALLERKGERVALLVTRGFRDLLHIGTQARGDLFDLAVPMPEVL YEEVLEVDERV  
 VLHRGEAGTGTPVKGRTGDLLLEVQQPVDL GALRGKLEGLL SRGIRSLAVL MHSY TWAQHEQQVGLARE  
 LGFTHVLSSEAMPVRI VPRGHTACADAYL TPAIQRYVQGF CRGFQGGQLKDVQL FMRSDGGLAPMDTF  
 SGSSAVLSGPAGGVVGY SATTYQQEGQPVI GFDMGGTSTDVSR YAGEFEHVFEASTAGVTLQAPQLDIN  
 TVAAGGGSRLFFRSGLFVVGPE SAGAHGPACYRKGGPVTVTDANLVLGRLLPASFPCIFGPGENQPLSP  
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 PGQTRPVFYVASRGGHADIGGITPGSMPPHSTMLQQEGAVFLSFKLVQGGVVFQEEAVTEALRAPGKVPNC  
 SGTNRNLHDNLSDLRAQVAANQKGIQLVGELIGQYGLDVVQAYMGHIQANAELAVRDLRAFGTSRQARGL  
 PLEVSSDHMDGSPIRLRVQISLSQGS AVDFSGTGPEVFGNLNAPRAVTL SALIYCLRCLVGRDIPLN  
 QGCLAPVRVVIPRGSILDPSPEAAVVGGNVLTSQRVVDVILGAFGACAASQGCMMNVTLGNAMHGYETV  
 AGGAGAGPSWHGRSGVHSHMTNTRITDPEILESRYPVILRRFELRRGSGGRFRFRGGDGV TRELLFREEA  
 LLSVL TERRAFRPYGLHGGE PGARGLNL LIRKNGRTVNLGGKTSVTVYPGDVFLHTPGGGGYGDPEDPA  
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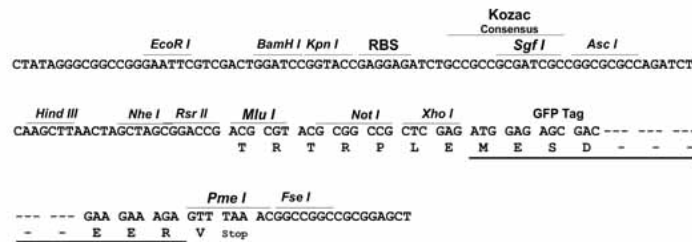
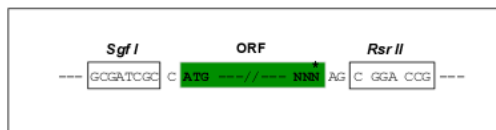
SGPTRRRLE - GFP Tag - V

Restriction Sites:

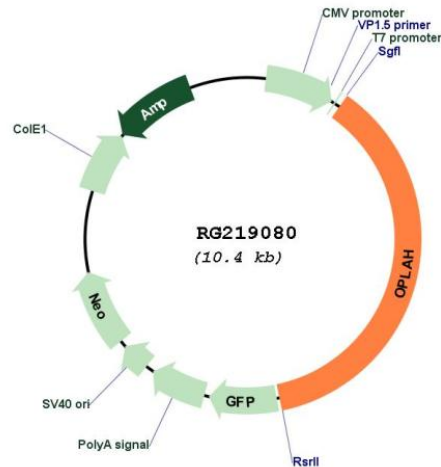
SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



## Plasmid Map:



ACCN: NM\_017570

ORF Size: 3864 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\\_017570.1](#), [NP\\_060040.1](#)

RefSeq Size: 3944 bp

RefSeq ORF: 3867 bp

Locus ID: 26873

UniProt ID: [O14841](#)

Cytogenetics: 8q24.3

**Protein Pathways:** Glutathione metabolism

**Gene Summary:** The protein encoded by this gene acts as a homodimer, using ATP hydrolysis to catalyze the conversion of 5-oxo-L-proline to L-glutamate. Defects in this gene are a cause of 5-oxoprolinase deficiency (OPLAHD). [provided by RefSeq, Jun 2012]