

## Product datasheet for **RG239679**

### DNA Ligase I (LIG1) (NM\_001289064) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNA Ligase I (LIG1) (NM_001289064) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LIG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG239679 representing NM\_001289064.  
 Blue=ORF Red=Cloning site Green=Tag(s)

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**Protein Sequence:** >Peptide sequence encoded by RG239679  
Blue=ORF Red=Cloning site Green=Tag(s)

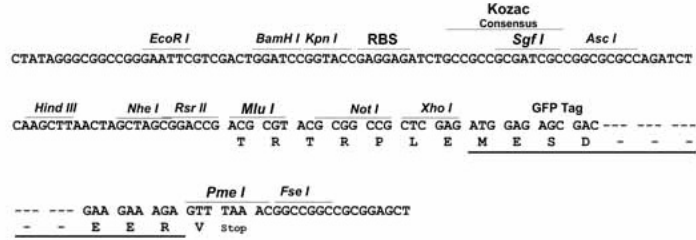
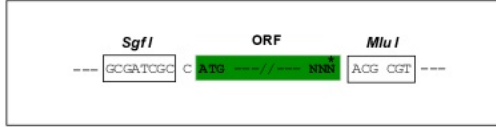
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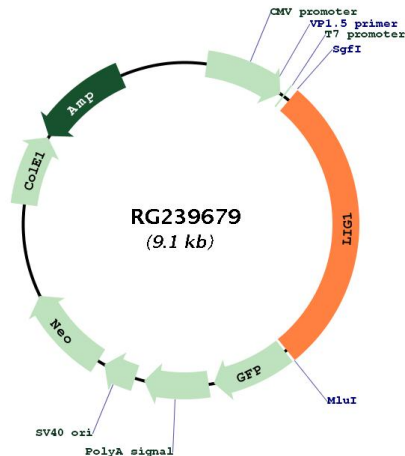
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**Restriction Sites:** Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



**Plasmid Map:**


<b>ACCN:</b>	NM_001289064
<b>ORF Size:</b>	2553 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>RefSeq:</b>	<a href="#">NM_001289064.1</a> , <a href="#">NP_001275993.1</a>
<b>RefSeq Size:</b>	3206 bp
<b>RefSeq ORF:</b>	2556 bp
<b>Locus ID:</b>	3978
<b>UniProt ID:</b>	<a href="#">P18858</a>
<b>Cytogenetics:</b>	19q13.33
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Base excision repair, DNA replication, Mismatch repair, Nucleotide excision repair
<b>MW:</b>	94.4 kDa

**Gene Summary:**

This gene encodes a member of the ATP-dependent DNA ligase protein family. The encoded protein functions in DNA replication, recombination, and the base excision repair process. Mutations in this gene that lead to DNA ligase I deficiency result in immunodeficiency and increased sensitivity to DNA-damaging agents. Disruption of this gene may also be associated with a variety of cancers. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]