

# Rat GCAT Gene ORF cDNA clone in cloning vector



**Sino Biological Inc.**  
Biological Solution Specialist

Catalog Number: RG88159-U

## General Information

**Gene :** glycine C-acetyltransferase

**Official Symbol :** GCAT

**Synonym :** GCAT

**Source :** Rat

**cDNA Size:** 1251bp

**RefSeq :** NM\_001024277.1

**Plasmid:** pUC19-ratGCAT

## Description

**Lot :** Please refer to the label on the tube

### Sequence Description :

Identical with the Gene Bank Ref. ID sequence except for the point mutations: 396T/C not causing the amino acid variation; 290T/G (I97S).

### Vector :

pUC19

### Shipping carrier :

Each tube contains approximately 10 µg of lyophilized plasmid.

### Storage :

The lyophilized plasmid can be stored at ambient temperature for three months.

### Quality control :

The plasmid is confirmed by full-length sequencing with primers in the sequencing primer list.

### Sequencing primer list :

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M13-47 : 5' GCCAGGGTTTTCCAGTCACGAC 3'

RV-M : 5' GAGCGGATAACAATTTACACAGG 3'

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Other M13 primers can also be used as sequencing primers.

### Shipping carrier :

Each tube contains approximately 10 µg of lyophilized plasmid.

### Storage :

The lyophilized plasmid can be stored at ambient temperature for three months.

## Plasmid Resuspension protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add 100 µl 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 to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 °C.

### The plasmid is ready for:

- Restriction enzyme digestion
- PCR amplification
- *E. coli* transformation
- DNA sequencing

## *E.coli* strains for transformation (recommended but not limited)

Most commercially available competent cells are appropriate for the plasmid, e.g. TOP10, DH5α and TOP10F'.

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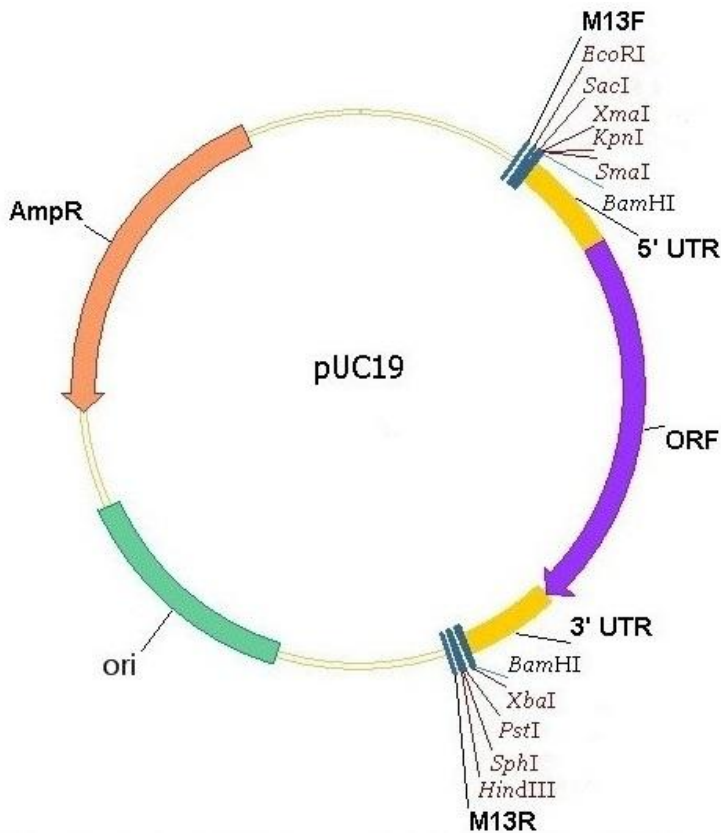
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## Vector Information

pUC19 is a small, high-copy number *E. coli* plasmid cloning vector, of which multiple cloning sites as shown below. The molecule is a small double-stranded circle, 2686 base pairs in length. pUC19 encodes the N-terminal fragment of  $\beta$ -galactosidase (*lacZa*), which allows for blue/white colony screening (i.e.,  $\alpha$ -complementation), as well as a pUC origin of replication.

## Physical Map of pUC19-ORF:



**Notes:** The full-length cDNA sequence included of 5' UTR and 3' UTR region. And UTR nucleotide is ranging from a few dozens to thousands of base pairs in size, Only ORF sequence is displayed. We strongly recommended only use gene specific primers for sequencing or PCR to subclone but not restriction enzyme digestion.