General Information

Gene: protein kinase, AMP-activated, alpha 1 catalytic subunit.
Official Symbol: PRKAA1
Synonym: AMPK, AMPKa1, MGC33776, MGC57364, PRKAA1
Source: Human
cDNA Size: 1680bp
RefSeq: NM_006251.5
Plasmid: pMD-PRKAA1

Description

Lot: Please refer to the label on the tube
Sequence Description: Identical with the Gene Bank Ref. ID sequence.

Vector: pMD18-T
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:

<table>
<thead>
<tr>
<th>Primer</th>
<th>Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>M13-47</td>
<td>5' GCCAGGGTTTCCCCAGTCACGAC 3'</td>
</tr>
<tr>
<td>RV-M</td>
<td>5' GAGCGGATAACATTTCACACAGG 3'</td>
</tr>
</tbody>
</table>

Other M13 primers can also be used as sequencing primers.

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−.
Vector Information

pMD18-T Vector is a high-efficiency TA cloning vector constructed from pUC18, of which multiple cloning sites as shown below. The pMD18-T Vector is 2.6kb in size and contains the ampicillin resistance gene for selection. The coding sequence was inserted by TA cloning at site 425.

Physical Map of pMD18 (MCS destroyed):

[Diagram showing the physical map of pMD18-T vector with multiple restriction sites and cloning sites labeled.]