**General Information**

**Gene**: hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)

**Official Symbol**: HIF1A

**Synonym**: MOP1, HIF-1alpha, PASD8, HIF1, bHLH-e78

**Source**: Human

**cDNA Size**: 2481bp

**RefSeq**: NM_001530

**Plasmid**: pGEM-HIF1A

**Description**

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

**Sequence Description**: Identical with the Gene Bank Ref. ID sequence.

**Vector**: pGEM-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’ GCCAGGGTTTTCCAGTCACGAC 3’</td>
</tr>
<tr>
<td>RV-M</td>
<td>5’ GAGCGGATAACAATTTTCACACAGG 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**

The pGEM-T vector is a high-efficiency TA cloning vector which contains multiple cloning sites as shown below. The pGEM-T vector is 3.0kb in size and contains the ampicillin resistance gene for selection. The coding sequence was inserted by TA cloning.

**Physical Map of pGEM-T**

![Physical Map of pGEM-T](image-url)