pDRIVE5SEAP-<promoter>
A plasmid encoding a promoter
Catalog code: pdrive5s-<promoter>
https://www.invivogen.com/promoters
For research use only
Version 20K05-MM

PRODUCT INFORMATION
Contents:
- 20 µg of pDRIVE5SEAP-<promoter> provided as lyophilized DNA
- 1 ml of Zeocin™ (100 mg/ml)

Storage and Stability:
- Product is shipped at room temperature.
- Lyophilized DNA should be stored at -20°C.
- Resuspended DNA should be stored at -20°C and is stable for up to 1 year.
- Store Zeocin™ at 4°C or at -20°C. The expiry date is specified on the product label.

Quality Control:
- Plasmid construct has been confirmed by restriction analysis and full-length ORF sequencing.
- Plasmid DNA was purified by ion exchange chromatography.

GENERAL PRODUCT USE
pDRIVE5SEAP is an expression plasmid containing a native or composite promoter of interest. pDRIVE5SEAP may be used to:

- Subclone a promoter of interest into another vector. Unique restriction sites are present at each end of the promoter allowing convenient excision. Typically the 5' restriction sites are Sdal and SpeI. Sdal is compatible with NsiI and PstI. SpeI is compatible with AarII, NheI and XbaI. Typically the 3' restriction site is Ncol which includes the ATG start codon, and is compatible with BspHI and BspLU11I.

- Compare the activity of different promoters in transient transfection experiments. Each pDRIVE5SEAP promoter drives the expression of the SEAP reporter gene which allows for testing of the promoter’s activity in transient transfection experiments. Furthermore, the SEAP gene is flanked by restriction sites (Ncol and Nhel) for easy replacement with a different gene of interest.

PLASMID FEATURES
- SEAP gene encodes an engineered secreted embryonic alkaline phosphatase. The levels of SEAP in the culture medium of transfected cells expressing the reporter gene can be assayed with chromogenic or luminescent methods.
- SV40 pAn: The Simian Virus 40 late polyadenylation signal enables efficient cleavage and polyadenylation reactions resulting in high levels of steady-state mRNA.
- pMB1 Ori is a minimal E. coli origin of replication with the same activity as the longer Ori.
- EM2K is a bacterial promoter that enables the constitutive expression of the antibiotic resistance gene in E. coli.
- Zeo gene confers Zeocin™ resistance therefore allowing the selection of transformed E. coli carrying a pDRIVE plasmid.

Note: Stable transfection of clones cannot be performed due to the absence of an eukaryotic promoter upstream of the Sh ble gene.

METHODS
Plasmid resuspension
Quickly spin the tube containing the lyophilized plasmid to pellet the DNA. To obtain a plasmid solution at 1 µg/µl, resuspend the DNA in 20 µl of sterile H2O. Store resuspended plasmid at -20°C.

Plasmid amplification and cloning
Plasmid amplification and cloning can be performed in E. coli GT116 or in other commonly used laboratory E. coli strains, such as DH5α.

Zeocin™ usage
This antibiotic can be used for E. coli at 25 µg/ml in liquid or solid media and at 50-200 µg/ml to select Zeocin™-resistant mammalian cells.

RELATED PRODUCTS

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Cat. Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChemiComp GT116</td>
<td>E. coli GT116</td>
<td>gt116-11</td>
</tr>
<tr>
<td>Zeocin™</td>
<td>Selection antibiotic</td>
<td>ant-zn-1</td>
</tr>
</tbody>
</table>