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 SdaI and SpeI. SdaI is compatible with NsiI and PstI. Spe I is compatible with Avr II, Nhe I and Xba I. Typically the 3' restriction site is NcoI 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 (NcoI and NheI) 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 H_2O. 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

Product	Description	Cat. Code
ChemiComp GT116	*E. coli* GT116	gt116-11
Zeocin™	Selection antibiotic	ant-zn-1

TECHNICAL SUPPORT
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