## Mouse cyclin D2/CCND2 Gene Lentiviral ORF cDNA expression plasmid, C-GFPSpark tag



Catalog Number: MG51009-ACGLN

#### **General Information**

Gene :	cyclin D2
Official Symbol :	CCND2
Synonym :	2600016F06Rik; Al256817; BF642806; C86853; cD2; Vin-1; Vin1
Source :	Mouse
cDNA Size:	1599bp(cDNA Size= Gene + linker +Tags)
RefSeq :	NM_009829.3
Plasmid	pLV-mCCND2-GFPSpark

#### 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: 594G/A,684A/T not causing the amino acid variation.

Restriction site: K	pnI + NotI(6.54kb+1.6kb)
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Vector : pLV-C-GFPSpark

#### 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 :

pLen-F:	5' CTCGTTTAGTGAACCGTCAGAATT 3'
pLen-R :	5' GAACCGGAACCCTTAAACATGT 3'

pLen-F and pLen-R are designed by Sino Biological Inc. Customers can order the primer pair from any oligonucleotide supplier.

#### **Plasmid Resuspension protocol**

- 1. Centrifuge at  $5,000 \times g$  for 5 min.
- 2. Carefully open the tube and add 100  $\mu l$  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 imes 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, DH5 $\alpha$  and TOP10F<sup>'</sup>, Stbl3.

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#### **Vector Information**

Sino Biolgicial pLV lentiviral vectors are the third generation lentivirus vector, and which contained specific elements to improve transgene expression, virus titer, biosafety. The vectors contain the following elements:

1) CMV2 promoter: The enhancer CMV promoter promotes a high level of expression of your gene of interest in a wide variety of cell lines.

2) 3' LTR: Required for viral reverse transcription; self- inactivating 3' LTR with deletion in U3 region prevents formation of replication-competent viral particles after integration into genomic DNA.

3) 5'LTR: U5 long terminal repeat is required for viral packaging and transcription. The 5' LTR promoter is replace by a CMV promoter to preventing replication of the viral sequences.

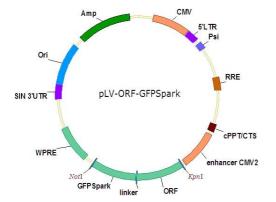
4) RRE: Rev response element binds gag and increases titers by promoting the nuclear export of unspliced viral genomic RNA.

5) cPPT/cTS: Central polypurine tract (includes DNA Flap region) increases nuclear translocation and integration of transduced viral genome efficiency.

# Vector Size7395bpVector TypeLentiviral VectorPromoterCMVAntibiotic ResistanceAmpicillinProtein TagGFPSparkSelection In Mammalian CellsNone

Vector Name

#### **Physical Map of Plasmid**



Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS. For U.S. Customer: Fax: 267-657-0217 Tel: 215-583-7898 Non-U.S. Customer: Fax: +86-10-5862-8288 Tel: +86-400-890-9989 <u>http://www.sinobiological.com</u>