## Human LAG3 natural ORF mammalian expression plasmid, N-Flag tag



**Catalog Number:** HG16498-NF

**General Information** 

Gene: lymphocyte-activation gene 3n

Official Symbol: LAG3

Synonym: **CD223** 

Source: Human

cDNA Size: 1578bp

RefSeq: NM\_002286.5

Plasmid: pCMV3-Flag-LAG3

**Description** 

Please refer to the label on the tube Lot:

**Sequence Description:** 

Identical with the Gene Bank Ref. ID sequence.

Restriction site: KpnI + XbaI (6kb + 1.58kb)

Vector: pCMV3-SP-N-FLAG

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:

5' CAGGTGTCCACTCCCAGGTCCAAG 3' pCMV3-F: pcDNA3-R: 5' GGCAACTAGAAGGCACAGTCGAGG 3' Or

Forward T7: 5' TAATACGACTCACTATAGGG 3' ReverseBGH: 5' TAGAAGGCACAGTCGAGG 3'

pCMV3-F and pcDNA3-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 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  $5000 \times g$ .
- 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'.

## **Human LAG3 natural ORF mammalian** expression plasmid, N-Flag tag



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#### **Vector Information**

All of the pCMV vectors are designed for high-level stable and transient expression in mammalian hosts. High-level stable and non-replicative transient expression can be carried out in most mammalian cells. The vectors contain the following elements:

- •Human enhanced cytomegalovirus immediate-early (CMV) promoter for high-level expression in a wide range of mammalian cells.
- Hygromycin resistance gene for selection of mammalian cell lines.
- A Kozak consensus sequence to enhance mammalian expression.

Vector Name pCMV3-SP-N-FLAG

Vector Size 6143bp

Vector Type Mammalian Expression Vector Expression Method Constiutive, Stable / Transient

Promoter CMV

Antibiotic Resistance Kanamycin

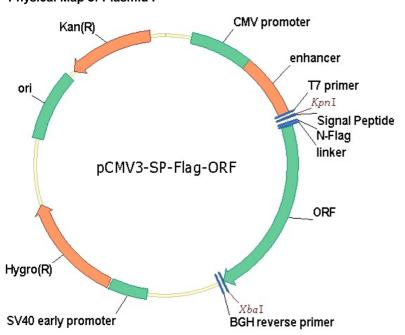
Selection In

Mammalian Cells

Hygromycin

FLAG Protein Tag

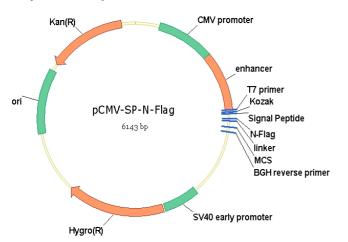
#### **Physical Map of Plasmid:**



# pCMV3-SP-N-FLAG (suitable for secretary and membane protein expession)



### **Physical Map**



#### Comments for pCMV3-SP-N-FLAG:

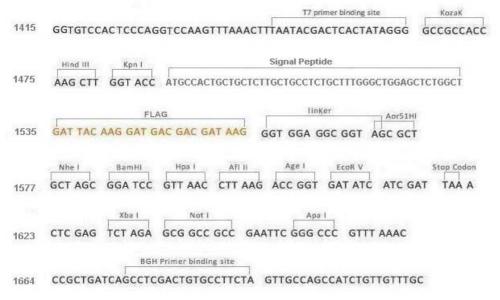
CMV promoter: bases 250-837 enhancer: bases 838-1445

SV40 early promoter: bases 2384-2753 Hygromycin ORF: bases 2771-3793 pUC origin: bases 4439-5112 Kanamycin ORF: bases 5186-6001

### Description

Vector Name	pCMV3-SP-N-FLAG
Vector Size	6143bp
Vector Type	Mammalian Expression Vector
Expression Method	Constitutive, Stable / Transient
Promoter	CMV
Antibiotic Resistance	Kanamycin
Selection In Mammalian Cells	Hygromycin
Protein Tag	FLAG
Sequencing Primer	Forward:T7(TAATACGACTCACTATAGGG) Reverse:BGH(TAGAAGGCACAGTCGAGG)

## Schematic of pCMV3-SP-N-FLAG Multiple Cloning Sites



pCMV3-SP-N-Flag is recommended for constructing the N-FLAG tag secretary and membrane proteins expression vector which containing a naïve signal peptide. An universal signal peptide is used to instead the naïve signal peptide.