

# Human CD25 / IL2R $\alpha$ ORF mammalian expression plasmid, N-His tag



**Sino Biological Inc.**  
Biological Solution Specialist

Catalog Number: HG10165-NH

## General Information

**Gene :** interleukin 2 receptor, alpha (IL2RA)  
**Official Symbol :** IL2RA  
**Synonym :** IL2RA, CD25, IL2R, TCGFR, IDDM10  
**Source :** Human  
**cDNA Size:** 819bp  
**RefSeq :** NM\_000417.1

## Description

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

**Vector :** pCMV3-SP-N-His

### Shipping carrier :

Each tube contains approximately 10  $\mu$ g 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 :

pCMV3-F: 5' CAGGTGTCCACTCCCAGGTCCAAG 3'

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  $\mu$ 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 $\times$ g.
5. Store the plasmid at -20  $^{\circ}$ 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'.

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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-His
Vector Size	6149bp
Vector Type	Mammalian Expression Vector
Expression Method	Constitutive, Stable / Transient
Promoter	CMV
Antibiotic Resistance	Kanamycin
Selection In Mammalian Cells	Hygromycin
Protein Tag	His

## Physical Map



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

CMV promoter: bases 250-837  
 enhancer: bases 838-1445  
 SV40 early promoter: bases 2390-2759  
 Hygromycin ORF: bases 2777-3802  
 pUC origin: bases 4445-5118  
 Kanamycin ORF: bases 5192-6007

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Protein Tag	His
Sequencing Primer	Forward:T7(TAATACGACTCACTATAGGG) Reverse:BGH(TAGAAGGCACAGTCGAGG)

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



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