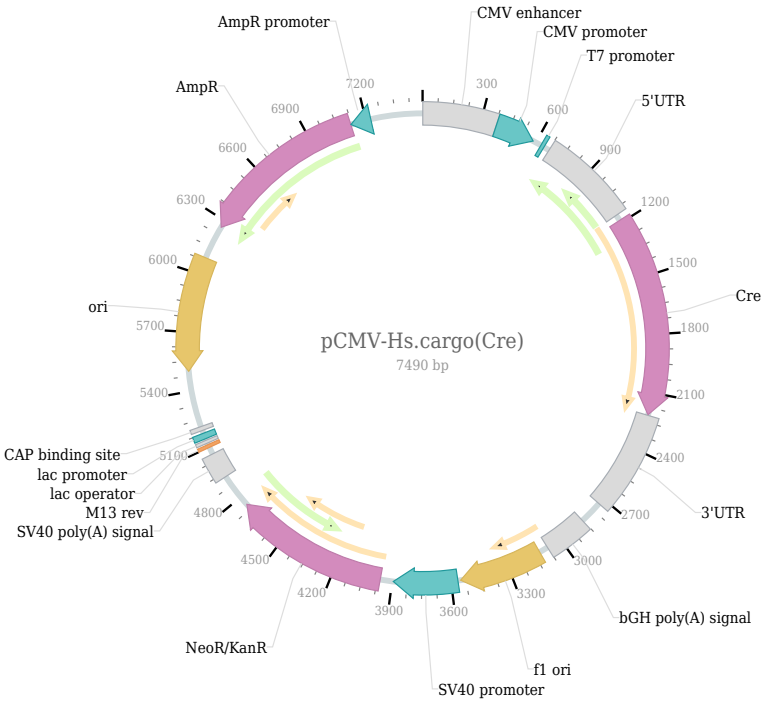
pCMV-Hs.cargo(Cre)

Vector ID	V014673
Antibiotic Resistance	Ampicillin
Length	7490 bp
Vector Type	Protein expression
Host	Mammalian cells

Product Information

Replication Origin	ori
Selection Marker	Neo/G418
Promoter	SV40
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pCMV-Hs.cargo(Cre) is a CMV-driven reporter plasmid for human SEND delivery system developed in Zhang Lab's 2021 Science work. It encodes Cre recombinase mRNA flanked by minimal human PEG10 5'UTR and proximal 500 bp 3'UTR, the specific packaging signals recognized by HsPEG10 capsid protein. Co-transfected with optimized rHsPEG10 and fusogen plasmids, it produces VLPs loaded with functional Cre mRNA. After target cell transduction, translated Cre triggers loxP-dependent fluorescent reporter expression to quantify intercellular mRNA delivery efficiency. This modular plasmid can be easily reconstructed to deliver mRNAs or CRISPR effectors instead of Cre.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
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×g.
5. Store the plasmid at -20 ℃.