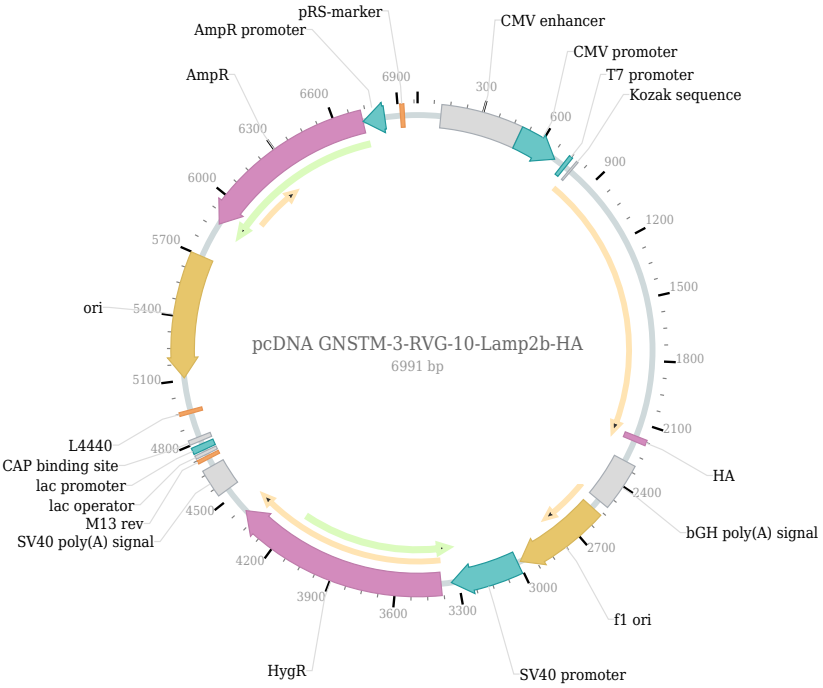
pcDNA GNSTM-3-RVG-10-Lamp2b-HA

Vector ID	V007525
Antibiotic Resistance	Ampicillin
Length	6991 bp
Vector Type	Mammalian Expression

Product Information

Replication Origin	ori
Source/Author	Joshua Leonard
Selection Marker	Hygromycin
Copy Number	High Copy
Promoter	CMV
Cloning Method	Restriction Enzyme
5' Primer	CMV-F
3' Primer	BGH-rev
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	The plasmid vector pcDNA GNSTM-3-RVG-10-Lamp2b-HA is designed for the generation of brain-targeted exosomes. It is used to express a fusion protein where the rabies virus glycoprotein (RVG) peptide is fused to the N-terminus of the exosomal membrane protein Lamp2b, facilitating the display of the RVG targeting ligand on the exosome surface. This platform is primarily applied in creating engineered exosomes for targeted drug delivery across the blood-brain barrier to the central nervous system. The vector typically contains standard features for mammalian expression, such as an ampicillin resistance gene for bacterial selection and a hygromycin resistance marker for selection in mammalian cells.

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 ℃.