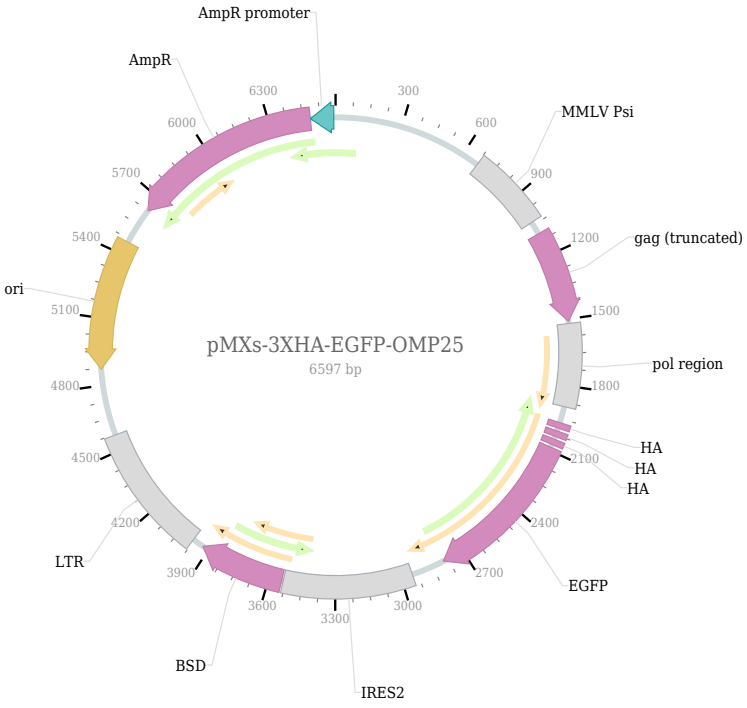
pMXs-3XHA-EGFP-OMP25

Vector ID	V017181
Antibiotic Resistance	Ampicillin
Length	6597 bp
Vector Type	Protein expression
Host	Mammalian cells, Retrovirus

Product Information

Replication Origin	ori
Selection Marker	Blast
Promoter	MMLV
Growth Strain(s)	Stbl3
Growth Temperature	30℃
Comment	pMXs-3XHA-EGFP-OMP25 is a retroviral mammalian expression plasmid created in David Sabatini's lab, also named HA-MITO construct. It encodes a fusion protein with triple HA epitopes, EGFP and OMP25 mitochondrial outer membrane targeting sequence, enabling both mitochondrial fluorescent labeling and anti-HA immunocapture. Carrying blasticidin resistance marker, it delivers the fusion gene into human cells via retroviral transduction for stable expression. This vector serves as core tool to rapidly purify intact mitochondria within 12 minutes for absolute LC/MS quantification of matrix metabolites in the 2016 Cell study.

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 ℃.