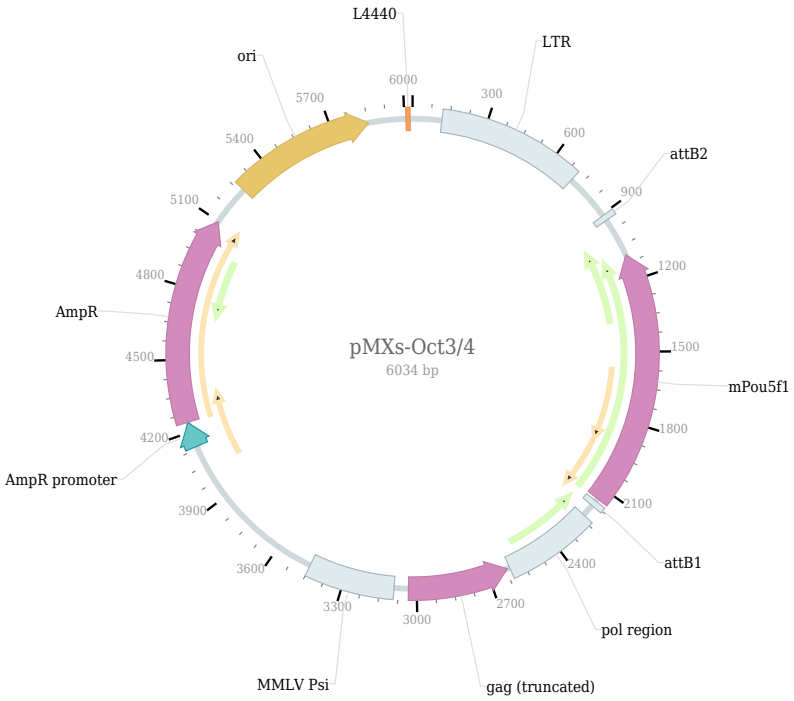
pMXs-Oct3/4

Vector ID	V000420
Antibiotic Resistance	Ampicillin
Length	6034 bp
Vector Type	Mammalian Expression, Retroviral

Product Information

Replication Origin	ori
Copy Number	High Copy
Cloning Method	Restriction Enzyme
5' Primer	pMX-S1811
Growth Strain(s)	DH10B
Comment	pMXs-Oct3/4 is a retroviral plasmid constructed by Yamanaka's lab for overexpressing mouse Oct3/4 transcription factor. It was co-transfected with pMXs-Sox2, pMXs-c-Myc and pMXs-Klf4 into fibroblasts to induce mouse iPS cells in the landmark 2006 Cell study. This vector produces retroviral particles via Plat-E packaging cells to stably deliver Oct3/4 into somatic cells for cellular reprogramming. Oct3/4 carried by this plasmid acts as an indispensable core pluripotency factor to drive fibroblast dedifferentiation.

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 ℃.