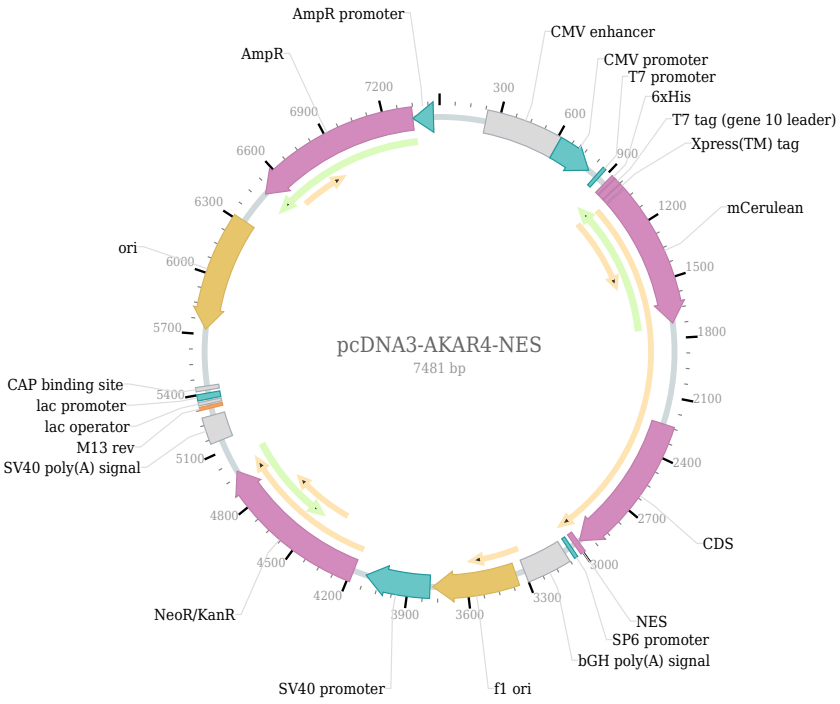
pcDNA3-AKAR4-NES

Vector ID	V017282
Antibiotic Resistance	Ampicillin
Length	7481 bp
Vector Type	Gene expression
Host	Mammalian cells

Product Information

Replication Origin	ori
Selection Marker	Neo/G418
Promoter	SP6
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pcDNA3-AKAR4-NES is a mammalian pcDNA3 backbone plasmid encoding a FRET biosensor for PKA activity. Fused with a nuclear export signal (NES), this reporter exclusively localizes to cell cytosol to monitor cytoplasmic PKA dynamics. Its Cerulean-cpVE172 FRET pair generates elevated yellow/cyan emission ratios upon PKA-mediated phosphorylation of the sensor substrate. This probe was utilized in PC12 cell research to prove growth factors fail to trigger cytosolic PKA without PDE3 inhibition.

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 ℃.