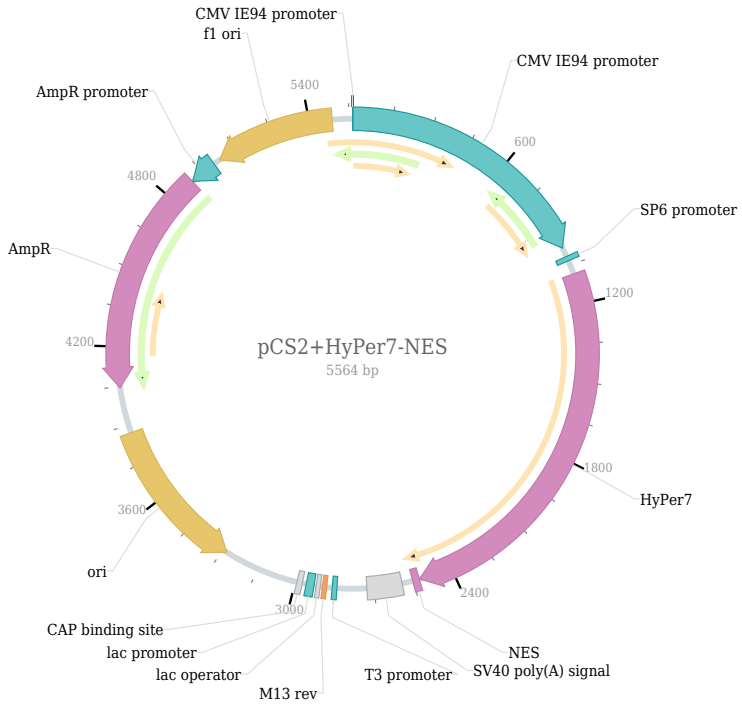
pCS2+HyPer7-NES

载体编号 Vector ID	V017132
抗性 Antibiotic Resistance	Ampicillin
长度 Length	5564 bp
载体类型 Vector Type	Protein expression
宿主 Host	Mammalian cells

产品信息

复制子 Replication Origin	ori
启动子 Promoter	CMV IE94
培养菌株 Growth Strain(s)	DH10B
培养温度 Growth Temperature	37℃
备注 Comment	HyPer7 is a chimeric ratiometric H_2O_2 sensor composed of Neisseria meningitidis OxyR regulatory domain and circularly permuted GFP (cpGFP). The OxyR-RD serves as the H_2O_2-sensing module with redox-sensitive cysteines, while inserted cpGFP generates dual excitation peaks for ratiometric readout. Multiple site mutations including G298S are introduced to greatly boost brightness, response speed and pH stability. Different targeting peptides like NES can be fused to basic HyPer7 to localize it to cytosol, mitochondria or actin filaments. Its coding sequence is cloned into vectors such as pCS2+ for expression in mammalian cells and zebrafish.

质粒图谱



复溶方法

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 ℃.