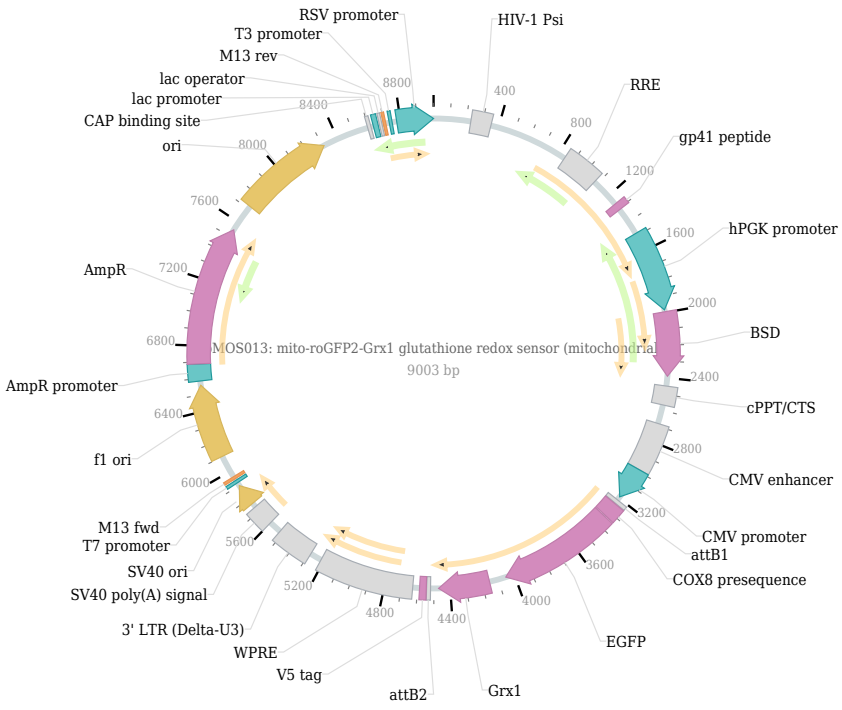
pMOS013: mito-roGFP2-Grx1 glutathione redox sensor (mitochondrial)

载体编号 Vector ID	V014411
抗性 Antibiotic Resistance	Ampicillin
长度 Length	9003 bp
载体类型 Vector Type	Protein expression
宿主 Host	Mammalian cells, Lentivirus

产品信息

复制子 Replication Origin	ori
筛选标记 Selection Marker	Blast
启动子 Promoter	hPGK
培养菌株 Growth Strain(s)	Stbl3
培养温度 Growth Temperature	30℃
备注 Comment	pMOS013 encodes mito-roGFP2-Grx1, a genetically encoded ratiometric fluorescent sensor exclusively targeted to the mitochondrial matrix. It specifically tracks mitochondrial glutathione (GSH/GSSG) redox potential via two excitation wavelengths (405 nm, 485 nm) and a single 510 nm emission channel. Its fused Grx1 domain boosts sensitivity and selectivity for glutathione redox shifts, showing strong signal changes under H_2O_2 oxidation or DTT reduction. This lentiviral sensor is integrated into the MOSAIC platform to profile organelle redox dynamics alongside dozens of other cellular physiological reporters in parallel.

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 ℃.