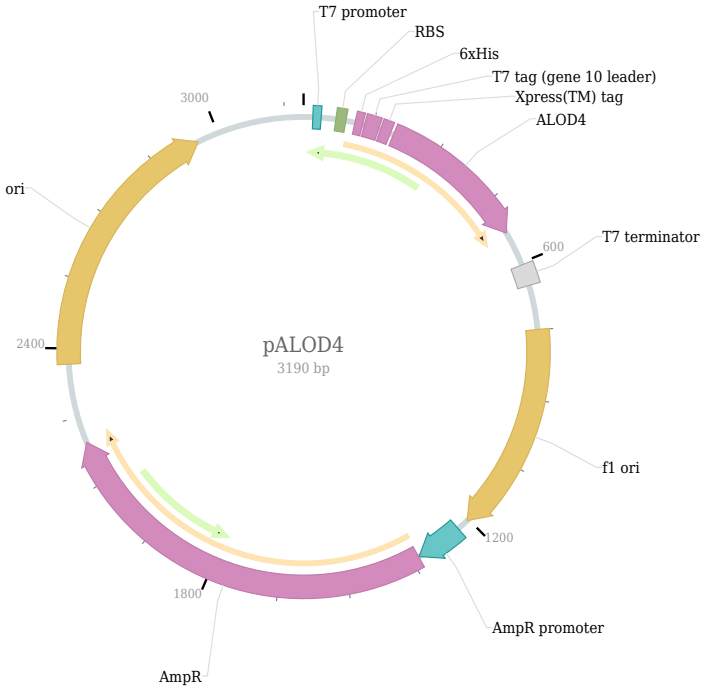
pALOD4

Vector ID	V017013
Antibiotic Resistance	Ampicillin
Length	3190 bp
Vector Type	Protein expression
Host	E. coli

Product Information

Replication Origin	ori
Promoter	T7
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pALOD4 is a pRSET-B prokaryotic expression plasmid encoding the monomeric cholesterol-binding domain 4 (404–512 aa) of anthrolysin O (ALO). It carries C472A and S404C mutations to eliminate native cysteine interference and enable fluorescent labeling, without oligomerization or hemolytic activity. Expressed in E. coli BL21 (DE3) pLysS, this construct serves as a tool to isolate membrane lipid-driven cholesterol sensing from protein oligomerization effects. Its mutant version with disrupted sterol-binding hexapeptide acts as a negative control for membrane cholesterol detection assays.

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 ℃.