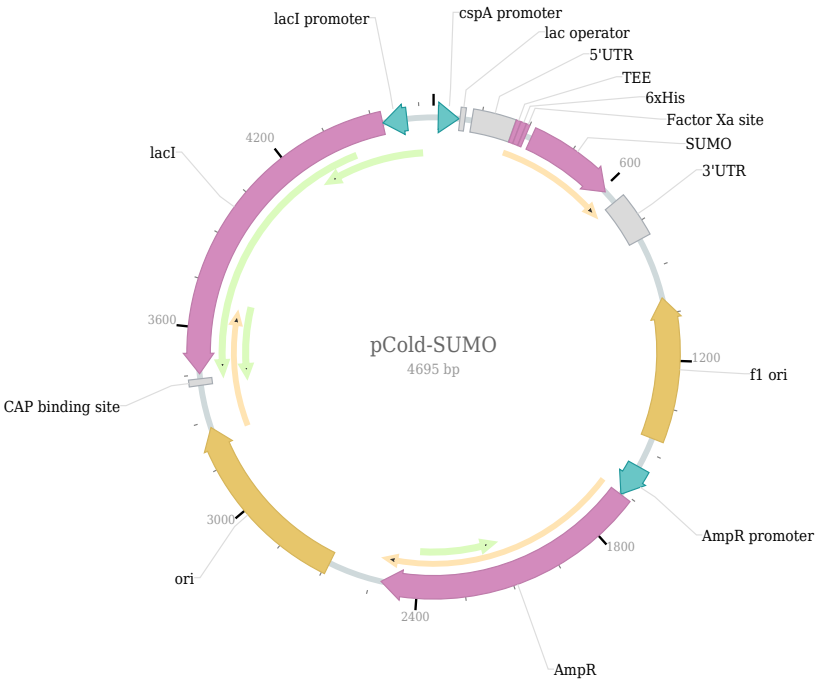
pCold-SUMO

Vector ID	V012856
Accession ID	pColdSUMO
Antibiotic Resistance	Ampicillin
Length	4695 bp
Vector Type	Protein expression
Host	E. coli

Product Information

Replication Origin	ori
Promoter	cspA
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	The prokaryotic expression vector pCold-SUMO is a modified version of the pCold vector. This vector utilizes the CS Promoter, which is derived from Antarctic psychrophilic bacteria, to initiate protein expression at low temperatures (15°C). At low temperatures, bacterial growth is slow, resulting in a reduced rate of protein synthesis. This, in turn, maximizes the chances of proper protein folding, enhances soluble protein expression, and increases the ratio of active protein. The expression system includes a SUMO tag, which can significantly improve the expression levels of small molecular weight proteins, further increasing the likelihood of soluble protein expression.

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 ℃.