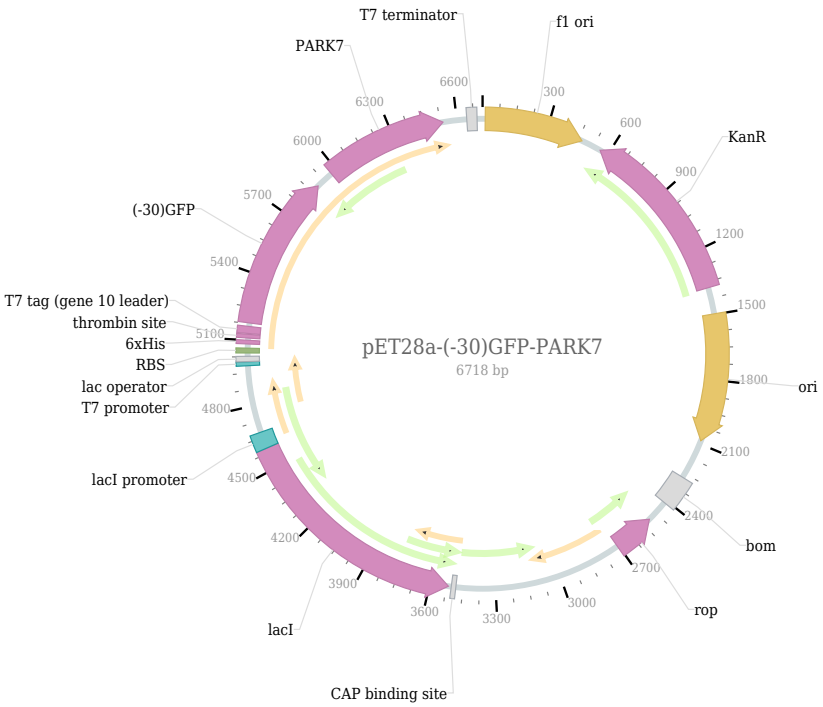
pET28a-(-30)GFP-PARK7

Vector ID	V015186
Antibiotic Resistance	Kanamycin
Length	6718 bp
Vector Type	Protein expression
Host	E. coli

Product Information

Replication Origin	ori
Promoter	T7
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pET28a-(-30)GFP-PARK7 is a prokaryotic expression vector with T7 promoter, supercharged GFP(-30) fused with PARK7/DJ-1 protein, Kan resistance, for protein-protein interaction and aggregation studies in E. coli. **(-30)GFP** is a supernegative GFP variant engineered by replacing 15 surface residues with negatively charged glutamate and aspartate, shifting its net charge from −7 to −30 while retaining spectral properties nearly identical to wild-type GFP. Its highly anionic surface enables electrostatic complexation with cationic lipids, allowing direct protein transduction across the plasma membrane within hours—bypassing the delays and overexpression artifacts of DNA transfection. As a fusion tag, it is thus well suited for real-time intracellular protein tracking and nucleocytoplasmic transport studies. The tradeoff is that its extreme negative charge can electrostatically interfere with the function of fused partner proteins (e.g., transcription factors), a limitation that must be assessed for each cargo.

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 ℃.