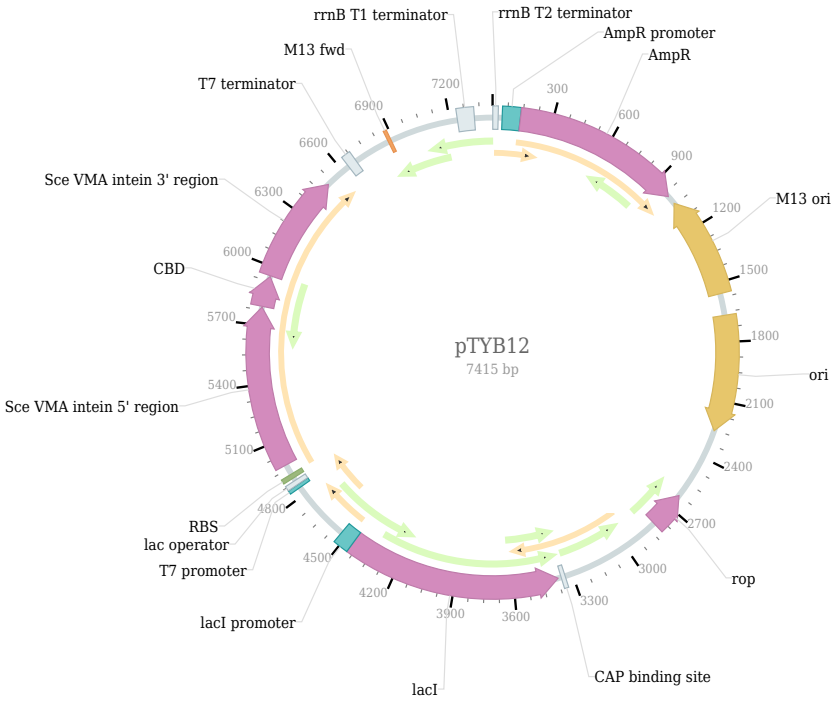
pTYB12

Vector ID	V012777
Antibiotic Resistance	Ampicillin
Length	7415 bp
Vector Type	E.coli expression plasmid

Product Information

Replication Origin	ori
Copy Number	High copy number
Promoter	T7
Cloning Method	Enzyme Cut
Growth Strain(s)	Top10
Growth Temperature	37℃
Comment	pTYB12 is an E. coli cloning and expression vector (7415 bp) used in the IMPACT™ Protein Purification System which allows the overexpression of a target protein as a fusion to a self-cleavable affinity tag (1,2). It is a N-terminal fusion vector designed for in-frame insertion of a target gene into the polylinker, downstream of the intein tag (the Sce VMA intein/chitin domain, 55 kDa)(3,4). This allows the N-terminus of the target protein to be fused to the intein tag. The self-cleavage activity of the intein allows the release of the target protein from the chitin-bound intein tag, resulting in a single column purification of the target protein. This vector can be used in conjuction with pTYB2 (NEB #N6702S) to test which fusion construction (N-terminal or C-terminal) maximizes the expression and yield of a target protein.

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 ℃.