

# Product Information

## pT7-FLAG™-3 Expression Vector

Catalog Number **P9618**  
 Storage Temperature -20 °C

### TECHNICAL BULLETIN

#### Product Description

The pT7-FLAG-3 Expression Vector is a 6153 bp *E. coli* expression vector used for cloning and cytoplasmic expression of a properly inserted open reading frame as an N-terminal FLAG fusion protein containing the FLAG® epitope (DYKDDDDK).<sup>1</sup> This vector requires the use *E. coli* cells containing the DE3 lysogen as a source of the T7 polymerase,<sup>2</sup> such as BL21(DE3)T1<sup>R</sup> cells, Catalog Number B2935.

The N-terminal FLAG fusion protein may be detected using Monoclonal ANTI-FLAG® M2, Catalog Number F3165, and purified using the ANTI-FLAG M2 Affinity Gel, Catalog Number A2220. The ampR and kanR antibiotic resistance genes are both present for selection flexibility in *E. coli*.

See the chart below for map positions of the features in the pT7-FLAG-3 vector.

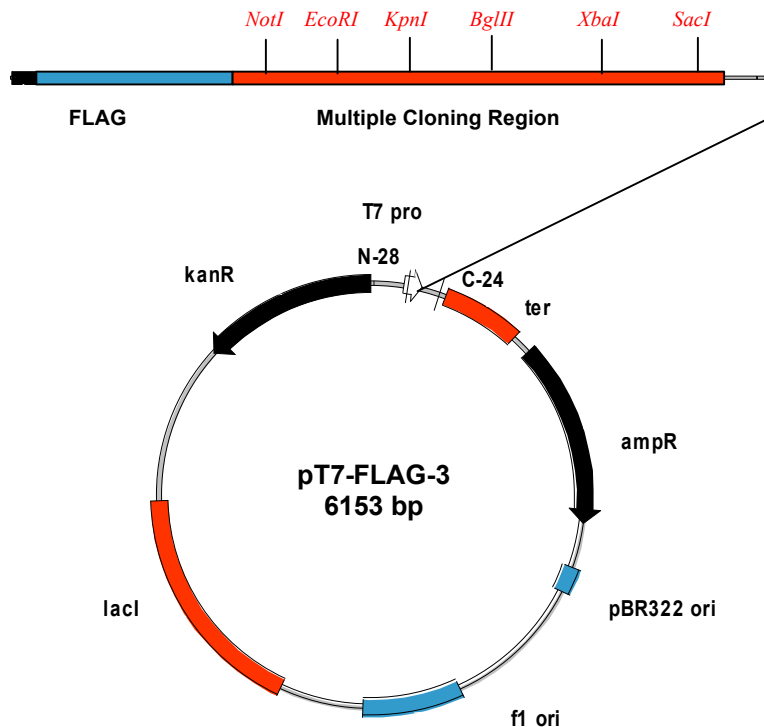
#### Reagents Provided

pT7-FLAG-3 Expression Vector  
 Catalog Number P8492

pT7-FLAG-3-BAP Control Plasmid  
 Catalog Number P8242

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.



PT7-FLAG-3 Feature	Map Position
pT7 Promoter	137-154
lacO	157-182
FLAG	223-243
MCS	250-295
T1/T2 ter.	336-706
Amp	798-1658
pBR322 ori	1870-1989
f1 ori	2653-3116
lacI	3509-4591
Kan	5335-6148

**Storage/Stability**

This product ships on dry ice and storage at -20 °C is recommended.

**References**

1. Hopp, T.V., et al., *BioTechnology*, **6**, 1204-1210 (1988).
2. Studier F.W., et al., *Journal of Molecular Biology*, **79**, 115-131 (1986).

**Nucleotide Sequence of the Multiple Cloning Region  
pT7-FLAG-3 Expression Vector**

Sequence Range: 217 to 300 bp

**Translational initiation**

ACC	<u>ATG</u>	GAC	TAC	AAA	GAC	GAT	GAC	GAC	AAG	CTT	GC	G	GCC	GCG	AAT	T	CC
TGG	TAC	CTG	ATG	TTT	CTG	CTA	CTG	CTG	TTC	GAA	CG	C	CGG	↑CGC	TTA	A	↑GG
	<b>Asp</b>	<b>Tyr</b>	<b>Lys</b>	<b>Asp</b>	<b>Asp</b>	<b>Asp</b>	<b>Asp</b>	<b>Asp</b>	<b>Lys</b>								
	←—— <b>FLAG Coding Sequence</b> ——→										<b>Multiple Cloning Region</b> ———→						

	<b>Kpn I</b>		<b>Bgl II</b>		<b>Xba I</b>		<b>Sac I</b>										
CGG	GTA	C	CT	GCA	GAT	CTA	GAT	AGA	TGA	GCT	CGT	CGA					
GCC	↑CAT	G	GA	CGT	CTA	G	↑AT	C	↑TA	TCT	AC	↑T	CGA	GCA	GCT		
	←————— <b>Multiple Cloning Region</b> —————→																

**Academic and Non-Profit Laboratory Assurance Letter**

The T7 system is based on technology developed at Brookhaven National Laboratory under contract with the U.S. Department of Energy and is the subject of U.S. Patent No. 5,693,489 (expiration date, December 2, 2014) assigned to Brookhaven Science Associates, LLC. (BSA). BSA will grant a nonexclusive license for the use of this technology, including the enclosed material, based upon the following assurances:

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2. No materials that contain the cloned copy of T7 gene 1, the gene for T7 RNA polymerase, may be distributed further to third parties outside of your laboratory, unless the recipient receives a copy of this license and agrees to be bound by its terms. This limitation applies to strains of BL21(DE3), BL21(DE3)pLysS, and BL21(DE3)pLysE, and any derivatives.

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