

pET-24a-d(+) Vectors

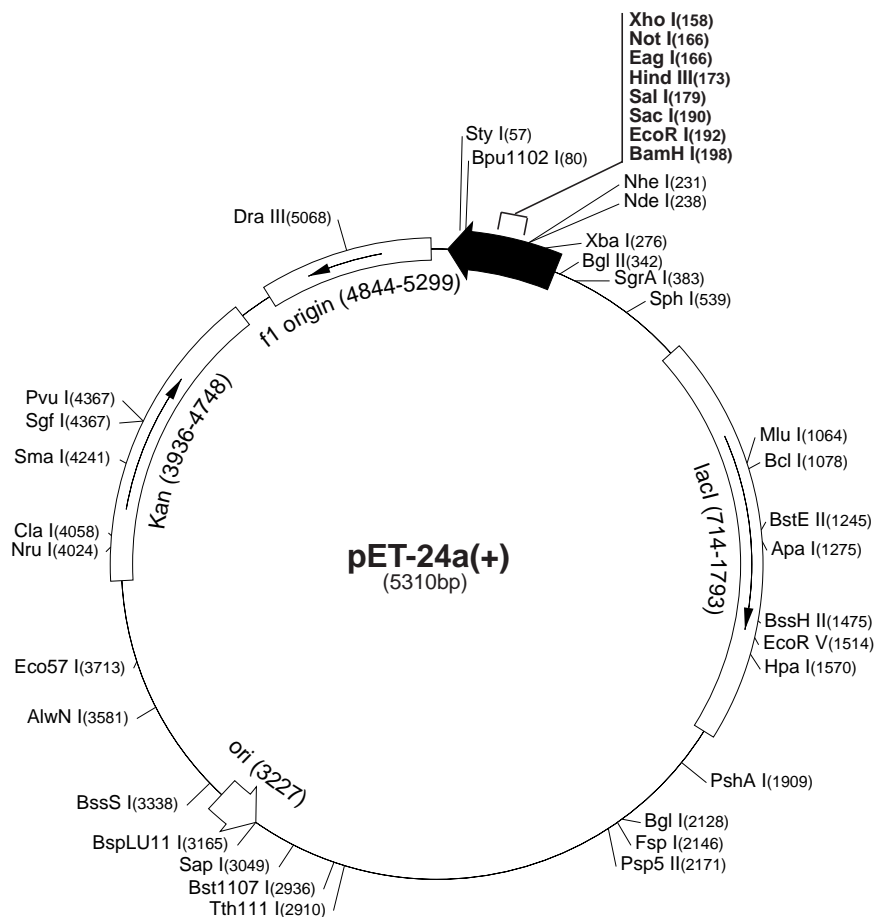
	Cat. No.
pET-24a DNA	69749-3
pET-24b DNA	69750-3
pET-24c DNA	69751-3
pET-24d DNA	69752-3

The pET-24a-d(+) vectors carry an N-terminal T7•Tag[®] sequence plus an optional C-terminal His•Tag[®] sequence. These vectors differ from pET-21a-d(+) only by their selectable marker (kanamycin vs. ampicillin resistance). Unique sites are shown on the circle map. Note that the sequence is numbered by the pBR322 convention, so the T7 expression region is reversed on the circular map. The cloning/expression region of the coding strand transcribed by T7 RNA polymerase is shown below. The f1 origin is oriented so that infection with helper phage will produce virions containing single-stranded DNA that corresponds to the coding strand. Therefore, single-stranded sequencing should be performed using the T7 terminator primer (Cat. No. 69337-3).

pET-24a(+) sequence landmarks

T7 promoter	311-327
T7 transcription start	310
T7•Tag coding sequence	207-239
Multiple cloning sites (<i>Bam</i> H I - <i>Xho</i> I)	158-203
His•Tag coding sequence	140-157
T7 terminator	26-72
<i>lac</i> I coding sequence	714-1793
pBR322 origin	3227
Kan coding sequence	3936-4748
f1 origin	4844-5299

The maps for pET-24b(+), pET-24c(+) and pET-24d(+) are the same as pET-24a(+) (shown) with the following exceptions: pET-24b(+) is a 5309bp plasmid; subtract 1bp from each site beyond *Bam*H I at 198. pET-24c(+) is a 5308bp plasmid; subtract 2bp from each site beyond *Bam*H I at 198. pET-24d(+) is a 5307bp plasmid; the *Bam*H I site is in the same reading frame as in pET-24c(+). An *Nco* I site is substituted for the *Nde* I site with a net 1bp deletion at position 238 of pET-24c(+). As a result, *Nco* I cuts pET24d(+) at 234, and *Nhe* I cuts at 229. For the rest of the sites, subtract 3bp from each site beyond position 239 in pET-24a(+). *Nde* I does not cut pET-24d(+). Note also that *Sty* I is not unique in pET-24d(+).



T7 promoter primer #69348-3

<i>Bgl</i> II	T7 promoter	lac operator	<i>Xba</i> I	rbs
AGATCTCGATCCCGCGAAATTAATACGACTCACTATAGGGGAATTGTGAGCGGATAACAATTCCCCCTAGAAAATAATTTTGTAACTTTAAGAAGGAGA				
<i>Nde</i> I, <i>Nhe</i> I	T7•Tag	pET-24a	<i>Bam</i> H I, <i>Eco</i> R I, <i>Sac</i> I, <i>Sal</i> I, <i>Hind</i> III, <i>Eag</i> I, <i>Not</i> I, <i>Xho</i> I	His•Tag
TATACATATGGCTAGCATGACTGGTGGACAGCAAAATGGGTCGCGGATCCGAATTCGAGCTCCGTCGACAAGCTTGGCGCCGCACTCGAGCACCACCACCACCCTGA MetAlaSerMetThrGlyGlyGlnGlnMetGlyArgGlySerGluPheGluLeuArgArgGlnAlaCysGlyArgThrArgAlaProProProProLeu				
pET-24d <i>Nco</i> I	pET-24b	...GGTCGGATCCGAATTCGAGCTCCGTCGACAAGCTTGGCGCCGCACTCGAGCACCACCACCACCCTGA ...GlyArgAspProAsnSerSerSerValAspLysLeuAlaAlaLeuGluHisHisHisHisHisEnd		
...TACCATGGCTAGC... MetAlaSer...	pET-24c.d	...GGTCGGATCCGAATTCGAGCTCCGTCGACAAGCTTGGCGCCGCACTCGAGCACCACCACCACCCTGA ...GlyArgIleArgIleArgAlaProSerThrSerLeuArgProHisSerSerThrThrThrThrThrGlu		
GATCCGGCTGCTAACAAAGCCCGAAAGGAAGCTGAGTTGGCTGCTGCCACCCGCTGAGCAATAACTAGCATAACCCCTTGGGGCCTTAAACGGGCTTGAGGGTTTTTTG				
		<i>Bpu</i> 1102 I	T7 terminator	
T7 terminator primer #69337-3				

pET-24a-d(+) cloning/expression region

