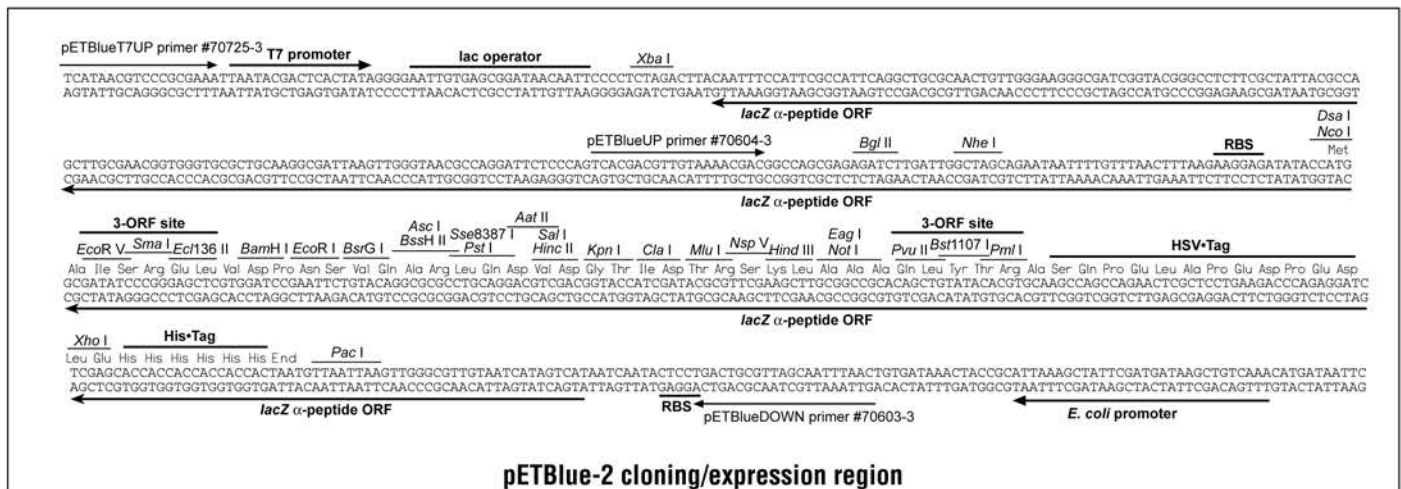
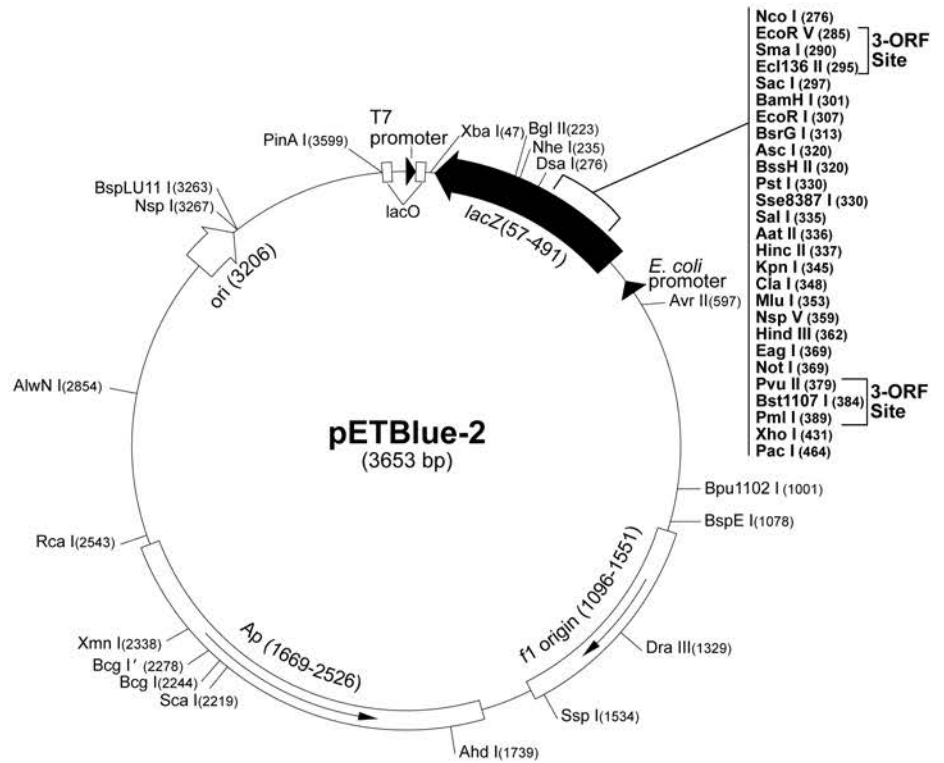


pETBlue-2 Vector

The pETBlue™ vectors are designed to identify recombinants by traditional blue/white screening while also allowing *T7lac* promoter based expression of target genes. Screening is independent of expression because the *T7lac* expression promoter is in an opposed orientation relative to the *E. coli* promoter that mediates blue/white screening. pETBlue-2 defines the open reading frame and inserts must be cloned in-frame if expression is desired. The vector features an expanded multiple cloning site (MCS) and optional C-terminal HSV•Tag® and His•Tag® sequences. The cloning/expression region of the coding strand transcribed by T7 RNA polymerase is shown below. The sequence is numbered from the first base of the T7 promoter sequence. Unique sites are shown on the circle map. The f1 origin in pETBlue-2 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 pETBlueDOWN primer (Cat. No. 70603-3).

pETBlue-2 sequence landmarks

lac operator	3606-3625
T7 promoter	1-17
lac operator	22-42
T7 transcription start	18
multiple cloning region (Nco I-Pac I)	276-467
His•Tag® coding sequence	437-454
HSV•Tag® coding sequence	395-430
lacZ start codon	491
lacZ α-peptide ORF	57-491
E. coli promoter	541-569
f1 origin	1096-1551
bla coding sequence	1669-2526
pUC origin	3206



pETBlue-2 cloning/expression region

