The pET-23a-d(+) vectors carry an N-terminal T7•Tag® sequence plus an optional C-terminal His•Tag® sequence. These vectors differ from pET-21a-d(+) by the “plain” T7 promoter instead of the T7lac promoter and by the absence of the lacI gene. 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-23a-d(+) sequence landmarks

The maps for pET-23b(+), pET-23c(+) and pET-23d(+) are the same as pET-23a(+) (shown) with the following exceptions: pET-23b(+) is a 3665bp plasmid; subtract 1bp from each site beyond BamHI at 198. pET-23c(+) is a 3664bp plasmid; subtract 2bp from each site beyond BamHI at 198. pET-23d(+) is a 3663bp plasmid; the BamHI site is in the same reading frame as in pET-23c(+). An NcoI site is substituted for the NdeI site with a net 1bp deletion at position 238 of pET-23c(+). As a result, NcoI cuts pET-23d(+) at 234, and NheI cuts at 229. For the rest of the sites, subtract 3bp from each site beyond position 239 in pET-23a(+). NdeI does not cut pET-23d(+). Note also that StyI is not unique in pET-23d(+).
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