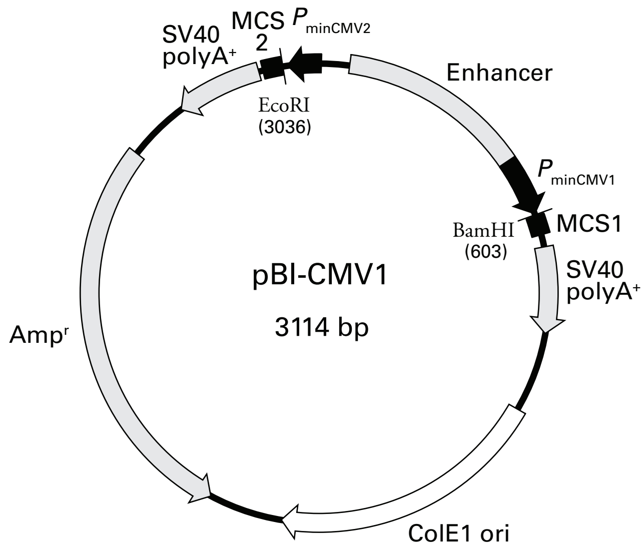
pBI-CMV1 Vector Information

PT4440-5

Catalog No. 631630



MCS 1

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                                            NheI                    HindIII
                           PvuII                     NotI                         SalI
      BamHI                          MluI            EagI    ClaI                       EcoRV
601   GGGATCCTCT  AGTCAGCTGA  CGCGTGCTAG  CGCGGCCGCA  TCGATAAGCT  TGTCGACGAT
      CCCTAGGAGA  TCAGTCGACT  GCGCACGATC  GCGCCGGCGT  AGCTATTCGA  ACAGCTGCTA

      EcoRV
661   ATCTCCAGAG
      TAGAGGTCTC
```

MCS 2

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           XbaI     PstI            BglII   ApaI                       EcoRI
2981  GATCCTCTAG  ACTGCAGCCT  CAGGAGATCT  GGGCCCCCGC  GGCATATGAC  CGGTGAATTC
      CTAGGAGATC  TGACGTCGGA  GTCCTCTAGA  CCCGGGGGCG  CCGTATACTG  GCCACTTAAG
```

pBI-CMV1 Vector Map and Multiple Cloning Sites (MCS 1 and 2).

Description

pBI-CMV1 is a mammalian bidirectional expression vector that allows the constitutive expression of two proteins of interest. Protein expression is driven by one of two constitutively active, minimal human cytomegalovirus promoters, $P_{minCMV1}$ and $P_{minCMV2}$, located just upstream of two independent multiple cloning sites (MCS 1 and MCS 2, respectively). To allow propagation and selection in *E. coli*, the vector also contains a ColE1 origin of replication and an ampicillin resistance gene (Amp^r).

Use

pBI-CMV1 is designed to simultaneously and constitutively express two genes of interest. Each gene must be cloned into a different MCS, and contain both an initiation codon and a stop codon. The pBI-CMV1 vector can be transfected into mammalian cells using any standard transfection method.

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Location of features
- Enhancer: 64–473
- $P_{minCMV1}$ (minimal human cytomegalovirus promoter 1): 474–599
- MCS 1 (multiple cloning site 1): 602–663
- SV40 polyA signals: 675–862
- ColE1 origin of replication: 1038–1637
- Amp^r (ampicillin resistance gene): 1799–2659 (complementary)
- SV40 polyA signals: 2795–2982 (complementary)
- MCS 2 (multiple cloning site 2): 2986–3040
- $P_{minCMV2}$ (minimal human cytomegalovirus promoter 2): 3046–3114

Propagation in *E. coli*
- Recommended host strain: DH5α™ and other general purpose strains.
- Selectable marker: plasmid confers resistance to ampicillin (100 µg/ml) in *E. coli* hosts.
- *E. coli* replication origin: ColE1
- Copy number: low
- Plasmid incompatibility group: pMB1/ColE1

Note: The vector sequence was compiled from information in the sequence databases, published literature, and other sources, together with partial sequences obtained by Clontech. This vector has not been completely sequenced.