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Product Information

pBICEP-CMV™-3 Expression Vector

Catalog Number **E7029**
Storage Temperature –20 °C

TECHNICAL BULLETIN

Product Description

The pBICEP-CMV-3 bicistronic expression vector is a 5.3 kb derivative of pCMV5[1] used for transient or stable co-expression of an N-terminal 1× FLAG® fusion protein and a selection gene in mammalian cells. The presence of two multiple cloning sites not only allows the user to clone a target gene, but a selectable marker of their choice, as well.

The promoter-regulatory region of the human cytomegalovirus immediate early promoter[2,3] drives transcription of the FLAG-fusion construct along with a downstream selection gene. The EMCV IRES[4,5] region controls translation of the selection gene by recruiting the ribosomal subunits for cap-independant translational initiation.

Depending on the mode of selection, stable transfectants can be generated by transfection using the appropriate ESCORT™ product line for the specific cell type utilized.

Precautions/Disclaimers

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.

Storage

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

References

1. Andersson, S., et al., J. Biol. Chem., **264**, 8222-8229 (1989).
2. Thomsen, D. R., et al., Proc. Natl. Acad. Sci. USA, **81**, 659-663 (1984).
3. Chapman, B. S., et al., Nucleic Acids Res., **19**, 3937-3986 (1991).
4. Jang, S. K., et al., J. Virol., **62**, 2636-2643 (1988).
5. Jackson, R. J., et al., Trends Biochem. Sci., **15**, 477-483 (1990).

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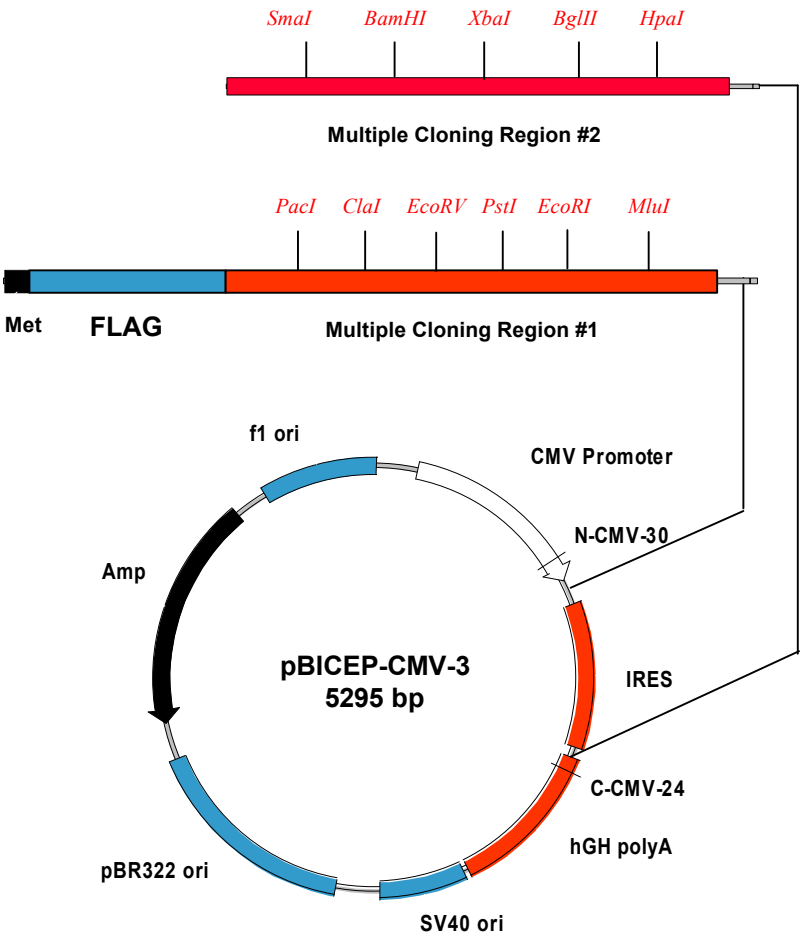

PBICEP-CMV-3 Feature	Map Position
CMV Promoter	166-916
FLAG	935-958
MCS#1	962-993
IRES	1016-1596
MCS#2	1608-1632
hGH polyA	1639-2258
pBR322 ori	3524-3643
Amp	3790-4708
f1 ori	4843-5295

Nucleotide Sequence of the Multiple Cloning Region
pBICEP-CMV-3 Expression Vector

Sequence Range: 929 to 1635 bp

Translational initiation — *Pac I* — *Cla I* — *EcoRV*

```
ACC ATG GAC TAC AAA GAC GAT GAC GAC AAG CTG TTA AT↓T AA↓T CG A T↓AT
TGG TAC CTG ATG TTT CTG CTA CTG CTG TTC GAC AAT↑TA A TTA GC↑T A↑TA
          Asp Tyr Lys Asp Asp Asp Asp Lys
```

FLAG Coding Sequence ——————→ *Multiple Cloning Region#1* ——→

Pst I — *EcoR I* — *Mlu I* — *Sma I* — *Bam HI*

```
C TG CA↓G↓AAT T CA↓ CGC G TC GAG ... ... ... 610 bp IRES ... ... ... CCC↓GG↓GATC C
G↑AC GT C TTA A↑GT GCG C↑AG CTC ... ... ... ... ... ... ... ... ... ... ... GGG↑CC CTAG↑G
```

Multiple Cloning Region#1 ————→ *Multiple Cloning Region#2* →

*Xba I** — *Bgl II* — *Hpa I*

```
T↓CTA↓G ATC TGTT↓AAC TCC
A GAT C↑TAG↑ACAA↑TTG AGG
```

Multiple Cloning Region#2 → *-sensitive to dam methylation