

## Product Information

### pFLAG-Myc-CMV™-21 Expression Vector

Catalog Number **E8908**

Storage Temperature -20 °C

#### Product Description

The pFLAG-Myc-CMV-21 Expression Vector is a 6.3 kb derivative of pCMV5<sup>1</sup> used to establish transient or stable secreted expression of dual-tagged N-terminal FLAG® and C-terminal *c-myc* fusion proteins in mammalian cells. The vector encodes the FLAG epitope (Asp-Tyr-Lys-Xaa-Xaa-Asp) and a *c-myc* epitope (EQKLISEEDL)<sup>2</sup> upstream and downstream of the multiple cloning sites, respectively. The preprotrypsin leader sequence<sup>3</sup> precedes the FLAG sequence.

The promoter-regulatory region of the human cytomegalovirus<sup>4</sup> drives transcription of FLAG and *c-myc* fusion constructs. The aminoglycoside phosphotransferase II gene (Neo) confers resistance to aminoglycosides such as G 418,<sup>5</sup> allowing for selection of stable transfectants.

pFLAG-Myc-CMV-21 Expression Vector is a shuttle vector for *E. coli* and mammalian cells. Efficiency of replication is optimal when using an SV40 T antigen-expressing host, such as COS cells.

The pFLAG-CMV-3-BAP Control Plasmid is a 7.7 kb derivative of pCMV5<sup>1</sup> used for transient expression and secretion of N-terminal FLAG bacterial alkaline phosphatase fusion protein in mammalian cells.

The promoter-regulatory region of the human cytomegalovirus<sup>2</sup> drives transcription of bacterial alkaline phosphatase. The preprotrypsin leader sequence<sup>3</sup> precedes the FLAG sequence. The aminoglycoside phosphotransferase II gene<sup>4</sup> (Neo) confers resistance to aminoglycosides such as G 418.<sup>5</sup> pFLAG-CMV-3-BAP Control Plasmid is a shuttle vector for *E. coli* and mammalian cells. Efficiency of replication and genomic integration is optimal when using an SV40 T antigen-expressing host, such as COS cells.

**Map positions of key features in the pFLAG-Myc-CMV-21 Expression Vector and the pFLAG-CMV-3-BAP Control Plasmid can be found at**

[www.sigma.com/vectormaps](http://www.sigma.com/vectormaps) .

#### Components

- pFLAG-Myc-CMV-21 Expression Vector 20 µg  
Catalog Number E5776  
Supplied as 0.5 mg/ml in 10 mM Tris-HCl, pH 8.0, 1 mM EDTA.
- pFLAG-CMV-3-BAP Control Plasmid 20 µg  
Catalog Number C3972  
Supplied as 0.5 mg/ml in 10 mM Tris-HCl, pH 8.0, 1 mM EDTA.

#### Precautions and Disclaimer

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/Stability

Store at -20 °C

#### References

1. Andersson, S., *et al.*, Cloning, structure, and expression of the mitochondrial cytochrome P-450 sterol 26-hydroxylase, a bile acid biosynthetic enzyme. *J. Biol. Chem.*, **264**, 8222-8229 (1989).
2. Thomsen, D. R., *et al.*, Cloning, structure, and expression of the mitochondrial cytochrome P-450 sterol 26-hydroxylase, a bile acid biosynthetic enzyme. *Proc. Natl. Acad. Sci. USA*, **81**, 659-663 (1984).
3. Stevenson, B. J., *et al.*, Sequence organization and transcriptional regulation of the mouse elastase II and trypsin genes. *Nucleic Acids Res.*, **21**, 8307-8330 (1986).
4. Brewer, C. B., Cytomegalovirus plasmid vectors for permanent lines of polarized epithelial cells. *Methods in Cell Biology*, **43**, 233-245 (1994).
5. Jimenez, A. and Davies, J., Expression of a transposable antibiotic resistance element in *Saccharomyces*. *Nature*, **287**, 869-871 (1980).
6. Campbell, A.M., *et al.* The alternative carboxyl termini of avian cardiac and brain sarcoplasmic reticulum/endoplasmic reticulum Ca(2+)-ATPases are on opposite sides of the membrane. *J. Biol. Chem.*, **267**, 9321-9325 (1992).

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