

## Product Information

### p3XFLAG-CMV™-9 Expression Vector

Catalog Number **E9783**

Storage Temperature -20 °C

#### Product Description

The p3XFLAG-CMV-9 Expression Vector is a 6.4 kb derivative of pCMV5<sup>1</sup> used to establish transient or stable expression of secreted N-terminal 3XFLAG™ fusion proteins in mammalian cells. The vector encodes three adjacent FLAG® epitopes (Asp-Tyr-Lys-Xaa-Xaa-Asp) upstream of the multiple cloning region. This results in increased detection sensitivity using ANTI-FLAG® M2 antibody.<sup>2</sup> The third epitope includes the enterokinase recognition sequence, allowing cleavage of the 3XFLAG peptide from the purified fusion protein.

The promoter-regulatory region of the human cytomegalovirus<sup>3,4</sup> drives transcription of FLAG-fusion constructs. The preprotrypsin leader sequence<sup>5</sup> precedes the FLAG sequence. The aminoglycoside phosphotransferase II gene<sup>6</sup> (Neo) confers resistance to aminoglycosides such as G 418,<sup>7</sup> allowing for selection of stable transfectants. p3XFLAG-CMV-9 expression vector 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. A related vector, p3XFLAG-CMV-3, has been used for stable transfection of HEK 293 cells<sup>8</sup>. Efficiency of replication and genomic integration is optimal when using an SV40 T antigen-expressing host, such as COS cells.

The p3XFLAG-CMV-7-BAP Control Plasmid is a 6.2 kb derivative of pCMV5<sup>1</sup> used for transient intracellular expression of N-terminal 3XFLAG bacterial alkaline phosphatase fusion protein in mammalian cells. The vector encodes three adjacent FLAG epitopes (Asp-Tyr-Lys-Xaa-Xaa-Asp) upstream of the multiple cloning region<sup>2</sup>. This results in increased detection sensitivity using ANTI-FLAG M2 antibody.<sup>3</sup> The third FLAG epitope includes the enterokinase recognition sequence, allowing cleavage of the 3XFLAG peptide from the purified fusion protein.

The promoter-regulatory region of the human cytomegalovirus<sup>4</sup> drives transcription of FLAG-fusion constructs.

p3XFLAG-CMV-7-BAP Control Plasmid 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.

**Map positions of key features in the p3XFLAG-CMV-9 Expression Vector and the p3XFLAG-CMV-7-BAP Control Plasmid can be found at**

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

#### Components

- p3XFLAG-CMV-9 Expression Vector 20 µg  
Catalog Number E4276  
Supplied as 0.5 mg/ml in 10 mM Tris-HCl, pH 8.0, 1 mM EDTA.
- p3XFLAG-CMV-7-BAP Control Plasmid 20 µg  
Catalog Number C7472  
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

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3. Thomsen, D.R., *et al.*, *Proc. Natl. Acad. Sci. USA*, **81**, 659-663 (1984)
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5. Chapman, B.S., *et al.*, *Nucl. Acids Res.*, **19**, 3979-3986 (1991)
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9. Soto, H., *et al.*, *Proc. Natl. Acad. Sci. USA*, **95**, 8205-8210 (1998)

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