

Product Information

p3XFLAG-Myc-CMV™-25 Expression Vector

Catalog Number **E9408**

Storage Temperature -20 °C

Product Description

The p3XFLAG-Myc-CMV-25 Expression Vector is a 6.4 kb derivative of pCMV5¹ used to establish transient or stable expression of secreted, dual tagged N-terminal 3XFLAG™ and C-terminal *c-myc* fusion proteins in mammalian cells. The vector encodes three adjacent FLAG® epitopes (Asp-Tyr-Lys-Xaa-Xaa-Asp) and a *c-myc* epitope (EQKLISEEDL)² upstream and downstream of the multiple cloning sites, respectively. The third FLAG epitope includes the enterokinase recognition sequence, allowing cleavage of the 3XFLAG peptide from the purified fusion protein. The incorporation of 3XFLAG in the expression vector results in increased detection sensitivity using ANTI-FLAG® M2 antibody.³

The promoter-regulatory region of the human cytomegalovirus^{4,5} drives transcription of FLAG and *c-myc* fusion constructs. The aminoglycoside phosphotransferase II gene⁶ (Neo) confers resistance to aminoglycosides such as G 418,⁷ allowing for selection of stable transfectants.

p3XFLAG-Myc-CMV-25 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 p3XFLAG-CMV-7-BAP Control Plasmid is a 6.2 kb derivative of pCMV5¹ 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 region². This results in increased detection sensitivity using ANTI-FLAG M2 antibody.³ 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 cytomegalovirus⁴ 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-Myc-CMV-25 Expression Vector and the p3XFLAG-CMV-7-BAP Control Plasmid can be found at

www.sigma.com/vectormaps.

Components

- p3XFLAG-Myc-CMV-25 Expression Vector 20 µg
Catalog Number E6276
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

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. Miceli, R.M., *et al.*, *J. Immunol. Methods*, **167**, 279-287 (1994)
4. Herman, R., *et al.*, *Biotechniques*, **28**, 789-793 (2000)
5. Campbell, A.M., *et al.*, *J. Biol. Chem.*, **267**, 9321-9325 (1992)
6. Chapman, B.S., *et al.*, *Nucl. Acids Res.*, **19**, 3979-3986 (1991)

7. Brewer, C.B., *Methods Cell Biol.*, **43**, 233-245 (1994)
8. Jimenez, A., and Davies, J., *Nature*, **287**, 869-871 (1980)

FLAG and ANTI-FLAG are registered trademarks, and p3XFLAG-Myc-CMV, p3XFLAG-CMV and 3XFLAG are trademarks, of Sigma-Aldrich Co. LLC

This product is covered by the following patents owned by Sigma-Aldrich Co. LLC: US6,379,903, US7,094,548, JP4405125, EP1220933, CA2386471 and AU774216.

RC,PHC 10/13-1