

Product Information

p3XFLAG-CMV™-14 Expression Vector

Catalog Number **E7908**

Storage Temperature -20 °C

Product Description

The p3XFLAG-CMV-14 Expression Vector is a 6.3 kb derivative of pCMV5¹ used to establish expression of transient or stable intracellular C-terminal 3XFLAG™ fusion proteins in mammalian cells. The vector encodes three adjacent FLAG® epitopes (Asp-Tyr-Lys-Xaa-Xaa-Asp) downstream of the multiple cloning region. This results in increased detection sensitivity using ANTI-FLAG® M2 antibody.²

The promoter-regulatory region of the human cytomegalovirus^{3,4} drives transcription of FLAG-fusion constructs. The aminoglycoside phosphotransferase II gene⁵ (Neo) confers resistance to aminoglycosides such as G 418,⁶ allowing for selection of stable transfectants.

p3XFLAG-CMV-14 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.

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-CMV-14 Expression Vector and the p3XFLAG-CMV-7-BAP Control Plasmid can be found at

www.sigma.com/vectormaps.

Components

- p3XFLAG-CMV-14 Expression Vector 20 µg
Catalog Number E4901
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)
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4. Hernan, R., *et al.*, *Biotechniques*, **28**, 789-793 (2000)

5. Chapman, B.S., *et al.*, *Nucl. Acids Res.*, **19**, 3979-3986 (1991)
6. Brewer, C.B., *Methods Cell Biol.*, **43**, 233-245 (1994)
7. Jimenez, A., and Davies, J., *Nature*, **287**, 869-871 (1980)

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.

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