



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# PRODUCT INFORMATION



## AcMNPV Major Envelope Glycoprotein

Item No. 37024

### Overview and Properties

**Synonyms:** AcMNPV GP64, *Autographa californica* Multicapsid Nucleopolyhedrovirus Major Envelope Glycoprotein, *Autographa californica* Multiple Nucleopolyhedrovirus Major Envelope Glycoprotein

**Source:** Recombinant AcMNPV (strain E2) C-terminal His-tagged major envelope glycoprotein expressed in insect cells

**Amino Acids:** 21-481

**Uniprot No.:** P17501

**Molecular Weight:** 54.2 kDa

**Storage:** -80°C (as supplied)

**Stability:** ≥1 year

**Purity:** ≥95% estimated by SDS-PAGE

**Supplied in:** Lyophilized from sterile 20 mM Tris, pH 7.5, 500 mM sodium chloride, and 10% glycerol

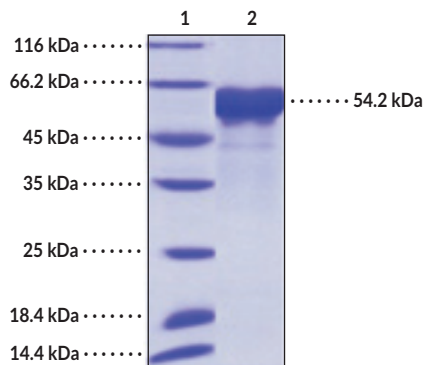
### Protein

**Concentration:** *batch specific* mg/ml

**Endotoxin Testing:** <1.0 EU/μg, determined by the LAL endotoxin assay

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Image



Lane 1: MW Markers  
Lane 2: AcMNPV Major Envelope Glycoprotein

**SDS-PAGE Analysis of AcMNPV Major Envelope Glycoprotein.** This protein has a calculated molecular weight of 54.2 kDa.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 01/26/2023

**CAYMAN CHEMICAL**  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM

# PRODUCT INFORMATION



## Description

---

*Autographa californica* multiple nucleopolyhedrovirus (AcMNPV) major envelope glycoprotein is a class III viral fusion protein.<sup>1</sup> AcMNPV is a double-stranded DNA insect virus and member of the *Baculoviridae* family. AcMNPV major envelope glycoprotein exists as a trimer and is composed of five domains in the low pH, post-fusion state that is highly post-translationally modified *via* glycosylation sites and a palmitoylation site at the C-terminus.<sup>2,3</sup> It is expressed on the surface of infected cells and budded virions.<sup>1</sup> AcMNPV major envelope glycoprotein is involved in viral envelope-host cell endosome membrane fusion in a low pH-dependent manner and in virion budding.<sup>4,5</sup> Lipoplexes containing AcMNPV major envelope glycoprotein have been used for gene delivery to mammalian cells, which can be inhibited by an AcMNPV major envelope glycoprotein neutralizing antibody.<sup>6</sup> Cayman's AcMNPV Major Envelope Glycoprotein protein consists of 472 amino acids, has a calculated molecular weight of 54.2 kDa, and a predicted N-terminus of Ala21 after signal peptide cleavage.

## References

---

1. Yu, Q., Bai, L., Ji, N., *et al.* Critical residues and contacts within domain IV of *Autographa californica* multiple nucleopolyhedrovirus GP64 contribute to its refolding during membrane fusion. *J. Virol.* **94**(19), e01105-20 (2020).
2. Kadlec, J., Loureiro, S., Abrescia, N.G.A., *et al.* The postfusion structure of baculovirus GP64 supports a unified view of viral fusion machines. *Nat. Struct. Mol. Biol.* **15**(10), 1024-1030 (2008).
3. Zhang, S.X., Han, Y., and Blissard, G.W. Palmitoylation of the *Autographa californica* multicapsid nucleopolyhedrovirus envelope glycoprotein GP64: Mapping, functional studies, and lipid rafts. *J. Virol.* **77**(11), 6265-6273 (2003).
4. Hu, L., Li, Y., Ning, Y.-J., *et al.* The major hurdle for effective baculovirus transduction into mammalian cells is passing early endosomes. *J. Virol.* **93**(15), e00709-19 (2019).
5. Oomens, A.G.P., and Blissard, G.W. Requirement for GP64 to drive efficient budding of *Autographa californica* multicapsid nucleopolyhedrovirus. *Virology* **254**(2), 297-314 (1999).
6. Guibinga, G.-H., Song, S., Loring, J., *et al.* Characterization of the gene delivery properties of baculoviral-based virosomal vectors. *J. Virol. Methods.* **148**(1-2), 277-282 (2008).

CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM