

PRODUCT INFORMATION

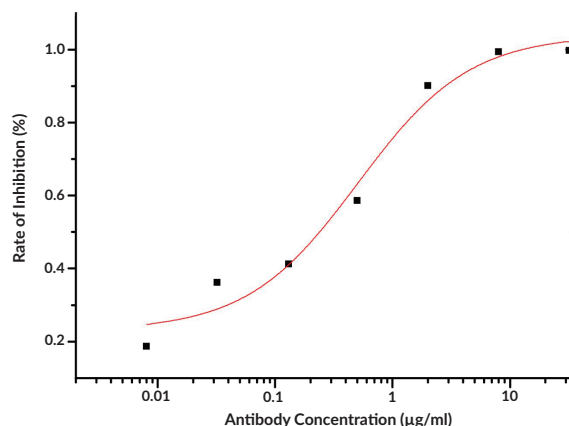


AcMNPV Major Envelope Glycoprotein Neutralizing Antibody (Clone M001) Item No. 37014

Overview and Properties

Contents:	This vial contains 200 or 500 µg of protein A-affinity purified monoclonal antibody
Synonyms:	AcMNPV GP64, <i>Autographa californica</i> Multicapsid Nucleopolyhedrovirus Major Envelope Glycoprotein, <i>Autographa californica</i> Multiple Nucleopolyhedrovirus Major Envelope Glycoprotein
Immunogen:	Recombinant AcMNPV (strain E2)
Cross Reactivity:	(+) Major envelope glycoprotein
Species Reactivity:	(+) AcMNPV; other species not tested
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Concentration:	>1 mg/ml
Clone:	M001
Host:	Mouse
Isotype:	IgG1
Applications:	Microneutralization (MN); the optimal working concentration/dilution should be determined empirically.

Image



AcMNPV Major Envelope Glycoprotein Neutralizing Antibody (Clone M001) neutralization activity is measured by microneutralization (MN) assay *in vitro*. The virus MN assay was performed on Sf9 cells infected with 1e7 pfu/ml recombinant *Autographa californica* nucleopolyhedrovirus under treatment of serial dilutions of AcMNPV Major Envelope Glycoprotein Neutralizing Antibody. The infection was neutralized by increasing concentrations of AcMNPV Major Envelope Glycoprotein Neutralizing Antibody. The IC₅₀ value is typically 0.25-1.0 µg/ml. The rate of inhibition was determined by comparing the fluorescence intensity of the reporter in the presence and absence of antibodies.

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
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Description

Autographa californica multiple nucleopolyhedrovirus (AcMNPV) major envelope glycoprotein is a class III viral fusion protein.¹ 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.^{2,3} It is expressed on the surface of infected cells and budded virions.¹ AcMNPV major envelope glycoprotein is involved in viral envelope-host cell endosome membrane fusion in a low pH-dependent manner and in virion budding.^{4,5} 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.⁶ Cayman's AcMNPV Major Envelope Glycoprotein Neutralizing Antibody (Clone M001) can be used for microneutralization (MN) assays.

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).
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