SANTA CRUZ BIOTECHNOLOGY, INC.

Baculovirus gp64 (AcV5): sc-65499

BACKGROUND

Viruses are obligate intracellular parasites which, lacking the cellular machinery for self-reproduction, can reproduce only by invading and controlling other cells. Virus particles are composed of a nucleic acid genome consisting of either DNA or RNA encapsidated with a protein coat. The Baculovirus envelope protein gp64 is a phosphoglycoprotein located on the surface of infected cells and budded virions. This protein may be involved in fusion of the viral envelope with the endosomal membrane. It also contains N-linked glycosylation sites and hydrophobic C- and N-termini, a characteristic of signal and membrane anchor motifts in envelope glycoproteins.

REFERENCES

1. Blissard, G.W., et al. 1991. Baculovirus gp64 gene expression: analysis of sequences modulating early transcription and transactivation by IE1. J. Virol. 65: 5820-5827.
2. Blissard, G.W., et al. 1992. Baculovirus gp64 envelope glycoprotein is sufficient to mediate pH-dependent membrane fusion. J. Virol. 66: 6829-6835.

SOURCE

Baculovirus gp64 (AcV5) is a mouse monoclonal antibody raised against AcNPV extracellular nonoccluded virus (NOV).

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Baculovirus gp64 (AcV5) is available conjugated to agarose (sc-65499 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65499 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65499 PE), fluorescein (sc-65499 FITC), Alexa Fluor® 488 (sc-65499 AF488), Alexa Fluor® 546 (sc-65499 AF546), Alexa Fluor® 594 (sc-65499 AF594) or Alexa Fluor® 647 (sc-65499 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65499 AF680) or Alexa Fluor® 790 (sc-65499 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Baculovirus gp64 (AcV5) is recommended for detection of baculovirus envelope protein gp64 of AcNPV origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of Baculovirus gp64: 64-67 kDa.

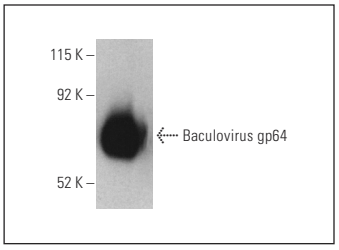
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

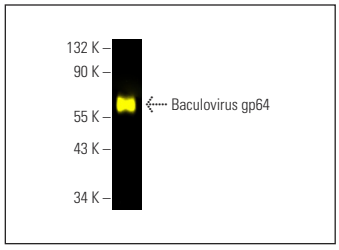
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Baculovirus gp64 (AcV5): sc-65499. Western blot analysis of *Autographa californica* nucleopolyhedrovirus (AcNPV)(strain E2) recombinant gp64.



Baculovirus gp64 (AcV5) Alexa Fluor® 488: sc-65499 AF488. Direct fluorescent western blot analysis of autographa californica nucleopolyhedrovirus (AcNPV)(strain E2) recombinant gp64. Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

1. Kaname, Y., et al. 2010. Acquisition of complement resistance through incorporation of CD55/decay-accelerating factor into viral particles bearing Baculovirus gp64. J. Virol. 84: 3210-3219.
2. Kamiya, K., et al. 2011. Cadherin-integrated liposomes with potential application in a drug delivery system. Biomaterials 32: 9899-9907.
3. Kataoka, C., et al. 2012. Baculovirus gp64-mediated entry into mammalian cells. J. Virol. 86: 2610-2620.
4. Gerster, P., et al. 2013. Purification of infective Baculoviruses by monoliths. J. Chromatogr. A 1290: 36-45.
5. Koho, T., et al. 2014. Coxsackievirus B3 VLPs purified by ion exchange chromatography elicit strong immune responses in mice. Antiviral Res. 104: 93-101.
6. Yu, Q., et al. 2015. *Autographa californica* multiple nucleopolyhedrovirus gp64 protein: analysis of domain I and V amino acid interactions and membrane fusion activity. Virology 488: 259-270.
7. Ke, X., et al. 2015. Identification of AcMNPV gp64-binding proteins through a combinational use of a self-biotinylated virus and the cross-linking method. Biochem. Biophys. Res. Commun. 467: 760-765.
8. Blazevic, V., et al. 2016. Rotavirus capsid VP6 protein acts as an adjuvant *in vivo* for norovirus virus-like particles in a combination vaccine. Hum. Vaccin. Immunother. 12: 740-748.
9. Balasundaram, G., et al. 2017. cDNA microarray assays to evaluate immune responses following intracranial injection of baculoviral vectors in non-human primates. J. Neurochem. 140: 320-333.

RESEARCH USE

For research use only, not for use in diagnostic procedures.