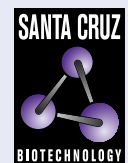


# VSV-G (F-6): sc-365019



The Power to Question

## BACKGROUND

Vesicular stomatitis virus (VSV) is an arbovirus in the family Rhabdoviridae, order Mononegavirales. VSV infects insects and mammals. The genome of VSV is a negative-sense RNA strand that encodes five major proteins: glycoprotein (G), matrix protein (M), nucleoprotein (NC), large protein (L) and phosphoprotein. The L protein and the phosphoprotein combine to catalyze the replication of VSV's mRNA. After endocytosis, the G protein facilitates VSV's entry into the cell by controlling virus attachment to the host cell as well as fusion of the viral envelope with the endosomal membrane. Transport of the G protein from the endoplasmic reticulum (ER) to the plasma membrane (PM) is temperature sensitive. Because of this property, VSV is commonly used in research labs to study the properties of viruses in the Rhabdoviridae family, and to study viral evolution.

## REFERENCES

- Hanover, J.A. 1988. Intracellular transport of VSV-G protein occurs in cells lacking a nuclear envelope. *Biochem. Biophys. Res. Commun.* 152: 469-476.
- Müsch, A., et al. 1996. Transport of vesicular stomatitis virus G protein to the cell surface is signal mediated in polarized and nonpolarized cells. *J. Cell Biol.* 133: 543-558.

## SOURCE

VSV-G (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 493-511 at the C-terminus of VSV-G of Vesicular stomatitis virus origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VSV-G (F-6) is available conjugated to agarose (sc-365019 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365019 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365019 PE), fluorescein (sc-365019 FITC), Alexa Fluor® 488 (sc-365019 AF488), Alexa Fluor® 546 (sc-365019 AF546), Alexa Fluor® 594 (sc-365019 AF594) or Alexa Fluor® 647 (sc-365019 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365019 AF680) or Alexa Fluor® 790 (sc-365019 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365019 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

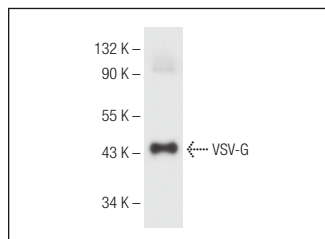
## APPLICATIONS

VSV-G (F-6) is recommended for detection of VSV-G of VSV origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

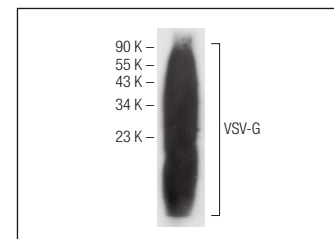
## STORAGE

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

## DATA



VSV-G (F-6): sc-365019. Western blot analysis of VSV-G recombinant multi-fusion tagged protein.



VSV-G (F-6): sc-365019. Western blot analysis of VSV-G recombinant multi-fusion tagged protein.

## SELECT PRODUCT CITATIONS

- Brummer, T., et al. 2019. NrCAM is a marker for substrate-selective activation of ADAM10 in Alzheimer's disease. *EMBO Mol. Med.* 11: e9695.
- Carbonaro-Sarracino, D.A., et al. 2019. Dosing and re-administration of lentiviral vector for *in vivo* gene therapy in rhesus monkeys and ADA-deficient mice. *Mol. Ther. Methods Clin. Dev.* 16: 78-93.
- Manolache, A., et al. 2020. Regulation of TRPM8 channel activity by Src-mediated tyrosine phosphorylation. *J. Cell. Physiol.* 235: 5192-5203.
- Wang, Z., et al. 2020. HpaR, the repressor of aromatic compound metabolism, positively regulates the expression of T6SS4 to resist oxidative stress in *Yersinia pseudotuberculosis*. *Front. Microbiol.* 11: 705.
- Rust, B.J., et al. 2020. Envelope-specific adaptive immunity following transplantation of hematopoietic stem cells modified with VSV-G lentivirus. *Mol. Ther. Methods Clin. Dev.* 19: 438-446.
- Song, L., et al. 2021. Contact-independent killing mediated by a T6SS effector with intrinsic cell-entry properties. *Nat. Commun.* 12: 423.
- Kalejaiy, T.D., et al. 2021. BSG/CD147 and ACE2 receptors facilitate SARS-CoV-2 infection of human iPS cell-derived kidney podocytes. *bioRxiv* 2021.11.16.468893.
- Cruz-Cardenas, J.A., et al. 2022. A pseudovirus-based platform to measure neutralizing antibodies in Mexico using SARS-CoV-2 as proof-of-concept. *Sci. Rep.* 12: 17966.
- Hasanpourghadi, M., et al. 2023. Heterologous chimpanzee adenovirus vector immunizations for SARS-CoV-2 spike and nucleocapsid protect hamsters against COVID-19. *Microbes Infect.* 25: 105082.
- Beznoussenko, G.V., et al. 2023. The diffusion model of intra-Golgi transport has limited power. *Int. J. Mol. Sci.* 24: 1375.

## RESEARCH USE

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