SANTA CRUZ BIOTECHNOLOGY, INC.

Norwalk Virus (1D9): sc-53557

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The Power to Question

BACKGROUND

The Norwalk Virus is a non-cultivatable member of the genus Norovirus and the family Caliciviridae that contains a positive strand RNA genome encoding a major structural protein (VP1) and a minor capsid protein (VP2) that forms a capsid with icosahedral symmetry. Noroviruses are genetically classified into five different genogroups (GI, GII, GIII, GIV and GV) which are then further divided into genotypes. Norwalk virus particles bind to digestive ducts such as the mid gut, main and secondary ducts, and tubules via carbohydrate structures with a terminal N-acetylgalactosamine residue in an a linkage. Infection by this virus commonly causes symptoms including diarrhea, vomiting, abdominal pain, low fever and general lethargy and weakness in humans.

REFERENCES

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2. Herrmann, J.E., et al. 1995. Monoclonal antibodies for detection of Norwalk Virus antigen in stools. J. Clin. Microbiol. 33: 2511-2513.
3. Prasad, B.V., et al. 1996. Structure of Norwalk Virus. Arch. Virol. Suppl. 12: 237-242.
4. Prasad, B.V., et al. 1999. X-ray crystallographic structure of the Norwalk Virus capsid. Science 286: 287-290.
5. Bertolotti-Ciarlet, A., et al. 2002. Structural requirements for the assembly of Norwalk Virus-like particles. J. Virol. 76: 4044-4055.
6. Harrington, P.R., et al. 2002. Binding of Norwalk Virus-like particles to ABH histo-blood group antigens is blocked by antisera from infected human volunteers or experimentally vaccinated mice. J. Virol. 76: 12335-12343.
7. Ettayebi, K., et al. 2003. Norwalk Virus nonstructural protein p48 forms a complex with the SNARE regulator VAP-A and prevents cell surface expression of vesicular stomatitis virus G protein. J. Virol. 77: 11790-11797.
8. Le Pendu, J., et al. 2004. Histo-blood group antigen and human milk oligosaccharides: genetic polymorphism and risk of infectious diseases. Adv. Exp. Med. Biol. 554: 135-143.
9. Le Guyader, F., et al. 2006. Norwalk Virus-specific binding to oyster digestive tissues. Emerging Infect. Dis. 12: 931-936.

SOURCE

Norwalk Virus (1C9) is a mouse monoclonal antibody raised against purified 8FIIa strain of Norwalk virus from human stool sample.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Norwalk Virus (1C9) is available conjugated to agarose (sc-53557 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-53557 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53557 PE), fluorescein (sc-53557 FITC), Alexa Fluor® 488 (sc-53557 AF488), Alexa Fluor® 546 (sc-53557 AF546), Alexa Fluor® 594 (sc-53557 AF594) or Alexa Fluor® 647 (sc-53557 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53557 AF680) or Alexa Fluor® 790 (sc-53557 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Norwalk Virus (1C9) is recommended for detection of the 8FIIa strain of Norwalk Virus (N-terminus of viral capsid) by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)]; non cross-reactive with other caliciviruses.

Molecular Weight of Norwalk Virus: 58 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

RESEARCH USE

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