rotavirus C vp6 (vE-20): sc-17515



The Power to Question

BACKGROUND

Rotaviruses are the leading cause of severe and life-threatening gastroenteritis in children and animals. The pathogenesis of the diarrhea remains poorly understood but it has been attributed to changes in transepithelial fluid balance, malabsorption due to destruction of the epithelial lining of the bowel, and vascular damage and ischemia of villi. The eleven fragments of the rotavirus genome each codify for one viral protein and two surface proteins. These surface proteins, vp4 and vp7, bring about the formation of neutralizing antibodies, which are important for the protection and determi-nation of different serotypes. The rotavirus enterotoxin, nonstructural glycoprotein number 4, otherwise known as NSP4, is a novel secretory agonist that also plays a role in the unique rotavirus morphogenesis that involves a transient budding of newly made immature viral particles into the endoplasmic reticulum. vp6 protein is an antigen common to both human and animal rotaviruses, which may undergo genetic rematchings.

REFERENCES

- Ball, J.M., Tian, P., Zeng, C.Q., Morris, A.P. and Estes, M.K. 1996. Agedependent diarrhea induced by a rotaviral nonstructural glycoprotein. Science 272: 101-104.
- Bajolet, O. and Chippaux-Hyppolite, C. 1998. Rotavirus and other viruses of diarrhea. Bull. Soc. Pathol. Exot. 91: 432-437.
- Kudo, S., Zhou, Y., Cao, X.R., Yamanishi, S., Nakata, S. and Ushijima, H. 2001. Molecular characterization in the VP7, VP4 and NSP4 genes of human rotavirus serotype 4 (G4) isolated in Japan and Kenya. Microbiol. Immunol. 45: 167-171.
- 4. Oka, T., Nakagomi, T. and Nakagomi, O. 2001. A lack of consistent amino acid substitutions in NSP4 between rotaviruses derived from diarrheal and asymptomatically-infected kittens. Microbiol. Immunol. 45: 173-177.
- Huang, H., Schroeder, F., Zeng, C., Estes, M.K., Schoer, J.K. and Ball, J.M. 2001. Membrane interactions of a novel viral enterotoxin: rotavirus nonstructural glycoprotein NSP4. Biochemistry 40: 4169-4180.
- Tafazoli, F., Zeng, C.Q., Estes, M.K., Magnusson, K.E. and Svensson, L. 2001. NSP4 enterotoxin of rotavirus induces paracellular leakage in polarized epithelial cells. J. Virol. 75: 1540-1546.

CHROMOSOMAL LOCATION

Genetic locus: S6 (human) mapping to 19q13.13; S6 (mouse) mapping to 17.

SOURCE

rotavirus C vp6 (vE-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of rotavirus C vp6.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17515 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

rotavirus C vp6 (vE-20) is recommended for detection of vp6 of rotavirus C origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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

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