



Respiratory Syncytial Virus NP (B023): sc-58001

BACKGROUND

Respiratory Syncytial Virus (RSV) is a major cause of respiratory illness in children who have not received the vaccine or treatment. Respiratory Syncytial Virus is a negative sense, enveloped, RNA virus. The virion has an average diameter between 120 and 300 nm. The fusion protein of the RSS 2 strain (subtype A) directs fusion of viral and cellular membranes, results in viral penetration, and can form syncytia or multi-nucleated giant cells. The matrix protein plays a role in viral assembly and has been observed to traffic into and out of the nucleus at specific times during the respiratory infectious cycle. The matrix protein has also been shown to be able to inhibit transcription, which may be a key to respiratory pathogenesis.

REFERENCES

1. Belshe, R.B., Newman, F.K., Anderson, E.L., Wright, P.F., Karron, R.A., Tollefson, S., Henderson, F.W., Meissner, H.C., Madhi, S., Robertson, D., Marshall, H., Loh, R., Sly, P., et al. 2004. Evaluation of combined live, attenuated Respiratory Syncytial Virus and parainfluenza 3 virus vaccines in infants and young children. *J. Infect. Dis.* 190: 2096-2103.
2. Sastre, P., Melero, J.A., García-Barreno, B. and Palomo, C. 2004. Comparison of antibodies directed against human Respiratory Syncytial Virus antigens present in two commercial preparations of human immunoglobulins with different neutralizing activities. *Vaccine* 23: 435-443.
3. Weir, E. and Fisman, D.N. 2004. Respiratory Syncytial Virus: pervasive yet evasive. *CMAJ* 170: 191.
4. Brock, S.C., Heck, J.M., McGraw, P.A. and Crowe, J.E. 2005. The transmembrane domain of the Respiratory Syncytial Virus F protein is an orientation-independent apical plasma membrane sorting sequence. *J. Virol.* 79: 12528-12535.
5. Playfor, S.D. and Khader, A. 2005. Arrhythmias associated with Respiratory Syncytial Virus infection. *Paediatr. Anaesth.* 15: 1016-1018.
6. Becker, Y. 2006. Respiratory syncytial virus(RSV)-induced allergy may be controlled by IL-4 and CX3C fractalkine antagonists and CpG ODN as adjuvant: hypothesis and implications for treatment. *Virus Genes* 33: 253-264.
7. Cilla, G., Sarasua, A., Montes, M., Arostegui, N., Vicente, D., Perez-Yarza, E. and Perez-Trallero, E. 2006. Risk factors for hospitalization due to Respiratory Syncytial Virus infection among infants in the Basque Country, Spain. *Epidemiol. Infect.* 134: 506-513.
8. Ghildyal, R., Ho, A. and Jans, D.A. 2006. Central role of the Respiratory Syncytial Virus matrix protein in infection. *FEMS Microbiol. Rev.* 30: 692-705.
9. Nunes, I.F. and Moura, F.E. 2006. Isolation of Respiratory Syncytial Virus from nasopharyngeal aspirates stored at 20° C from one to fifteen months after collection. *Mem. Inst. Oswaldo Cruz* 101: 451-453.

SOURCE

Respiratory Syncytial Virus NP (B023) is a mouse monoclonal antibody raised against Respiratory Syncytial Virus strains 127, SNK and 9007 of bovine origin and human Respiratory Syncytial Virus strains A2, Long, Randall and 8/60 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Respiratory Syncytial Virus NP (B023) is recommended for detection of Respiratory Syncytial Virus by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

SELECT PRODUCT CITATIONS

1. Figueroa, F., Vega-Gibson, A., Catrileo, J., Gaete-Argel, A., Riquelme-Barrios, S., Alonso-Palomares, L.A., Tapia, L.I., Valiente-Echeverría, F., Soto-Rifo, R. and Acevedo, M.L. 2021. N⁶-methyladenosine negatively regulates human Respiratory Syncytial Virus replication. *Front. Cell Dev. Biol.* 9: 739445.

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 for detailed protocols and support products.