



Cryptosporidium parvum (5E248): sc-70888

BACKGROUND

Cryptosporidium parvum is a parasitic protozoan belonging to the phylum Apicomplexa, subclass Coccidia. The microbe is an enteric pathogen with a worldwide distribution that causes cryptosporidiosis in humans and certain animals, including domestic livestock. *Cryptosporidium parvum* complete their life cycles in a single host and their oocysts are highly infectious. The oocysts are usually transmitted via contaminated water, contaminated food, fecal transmission from infected animals or person-to-person. In humans, cryptosporidiosis causes abdominal pain, profuse diarrhea, weight loss, loss of appetite and anorexia, but the infection is usually self-limiting and resolves within a few weeks. In immunocompromised individuals, however, the infection may be more serious, becoming chronic and sometimes fatal.

REFERENCES

1. Siripanth, C., Punpoowong, B., Amarapal, P., Thima, N., Eampokalap, B. and Kaewkungwal, J. 2004. Comparison of *Cryptosporidium parvum* development in various cell lines for screening *in vitro* drug testing. Southeast Asian J. Trop. Med. Public Health 35: 540-546.
2. Kuznar, Z.A. and Elimelech, M. 2004. Adhesion kinetics of viable *Cryptosporidium parvum* oocysts to quartz surfaces. Environ. Sci. Technol. 38: 6839-6845.
3. Chen, X.M., O'Hara, S.P., Nelson, J.B., Splinter, P.L., Small, A.J., Tietz, P.S., Limper, A.H. and LaRusso, N.F. 2005. Multiple TLRs are expressed in human cholangiocytes and mediate host epithelial defense responses to *Cryptosporidium parvum* via activation of NF- κ B. J. Immunol. 175: 7447-7456.
4. Ehigiator, H.N., Romagnoli, P., Borgelt, K., Fernandez, M., McNair, N., Secor, W.E. and Mead, J.R. 2005. Mucosal cytokine and antigen-specific responses to *Cryptosporidium parvum* in IL-12p40 KO mice. Parasite Immunol. 27: 17-28.
5. Tang, G., Adu-Sarkodie, K., Kim, D., Kim, J.H., Teefy, S., Shukairy, H.M. and Mariñas, B.J. 2005. Modeling *Cryptosporidium parvum* oocyst inactivation and bromate formation in a full-scale ozone contactor. Environ. Sci. Technol. 39: 9343-9350.
6. Akili, D., Heidari, M., Welter, L.M., Reinhardt, T.A. and Harp, J.A. 2006. Characterization of a factor from bovine intestine that protects against *Cryptosporidium parvum* infection. Vet. Parasitol. 142: 168-172.
7. Helmy, M.M., Rashed, L.A. and Abdel-Fattah, H.S. 2006. Co-infection with *Cryptosporidium parvum* and *Cyclospora cayentanensis* in immunocompromised patients. J. Egypt. Soc. Parasitol. 36: 613-627.
8. McDonald, V., Pollok, R.C., Dhaliwal, W., Naik, S., Farthing, M.J. and Bajaj-Elliott, M. 2006. A potential role for Interleukin-18 in inhibition of the development of *Cryptosporidium parvum*. Clin. Exp. Immunol. 145: 555-562.
9. Ehigiator, H.N., McNair, N. and Mead, J.R. 2007. *Cryptosporidium parvum*: The contribution of Th1-inducing pathways to the resolution of infection in mice. Exp. Parasitol. 115: 107-113.

SOURCE

Cryptosporidium parvum (5E248) is a mouse monoclonal antibody raised against intact *Cryptosporidium parvum*.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Cryptosporidium parvum (5E248) is recommended for detection of intact *Cryptosporidium parvum* oocysts of *Cryptosporidium parvum* origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

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.