CYREX® Laboratories

CLINICAL SPECIFICATIONS

ROTAVIRUS (saliva)

Pathogen Type:

Human rotaviruses belong to the family of Reoviridae. Rotavirus is a double-stranded RNA virus that is commonly associated with gastroenteritis in children.

Antibodies Appear:

Rotavirus gastroenteritis[3] (serum)

Current/Recent onset Rotavirus infection[1, 5, 6] (salivary)

Known Cross-Reactions: Pollen allergen of *Parietaria*[2]

Clinical Significance:

The detection of salivary antibodies to Rotavirus in an infant may indicate either mucosal immune protection in the absence of diarrhea,[4] or if accompanied by diarrhea, current/recent onset Rotavirus infection.[1] In adults, elevated salivary antibody production to Rotavirus has been shown to indicate active or recent infection.[5, 6] In one study of injected adults, antibodies rose four-fold after 13 days and then decreased significantly by 27 days after injection of the virus.[6] Hjelt and colleagues found that secretory immunoglobulins could persist even after one month of naturally-occurring infection in children and in some subjects, elevated antibodies were found several months later.[3]

Suggested Reading:

1. Aiyar, et al. Rotavirus-specific antibody response in saliva of infants with rotavirus diarrhea. J Infect Dis, 1990; 162:1383-1384.
2. Di Somma, et al. Cross-reactivity between the major Parietaria allergen and rotavirus VP4 protein. Allergy, 2003; 58(6):503-510.
3. Hjelt, et al. Antibody response in serum and intestine in children up to six months after a naturally acquired rotavirus gastroenteritis. J Pediatr Gastroenterol Nutr, 1986; 5:74-80.
4. Mestecky and McGhee. Immunoglobulin A (IgA): molecular and cellular interactions involved in IgA biosynthesis and immune response. Adv Immunol, l987; 40:153-245.
5. Molyneaux. Human immunity to rotavirus. Med Microbiol, 1995; 43:397-404.
6. Ward, et al. Salivary antibody titers in adults challenged with a human rotavirus. Med Virol, 1992; 36:222-225.