



Bio-Rad Laboratories
Improving lives with every test.

Rotavirus

Pathfinder® Rotavirus EIA

Rotavirus is the most common cause of severe gastroenteritis among children. In the United States, annual epidemics occur from November to April. Rotavirus is also an important cause of nosocomial gastroenteritis.

Timely diagnosis of rotavirus infection in patients with acute diarrhea helps determine appropriate treatment, prevents the use of unnecessary antibiotics and minimizes the spread of the disease.

Bio-Rad offers the Pathfinder® Rotavirus EIA, a rapid and simple test for rotavirus infection which can significantly aid in patient management. The Pathfinder® Rotavirus Enzyme Immunoassay Direct Antigen Detection System is for the diagnosis of rotavirus infection. It uses polyclonal and monoclonal antibodies to detect rotavirus directly from patient specimens. This assay combines the specificity and reproducibility of monoclonal antibodies with the speed and efficiency of EIA. Qualitative results are available within 90 minutes.

Confidence in Results

- Polyclonal antibody-coated tubes provide efficiency of capture, resulting in a high sensitivity of 95%
- Monoclonal antibodies in the conjugate provides specificity in the detection of captured antigen, resulting in a specificity of 99%

Ease-of-Use

- Minimal hands-on time
- Room temperature incubation
- Results available in 90 minutes for single or batch testing

Flexibility

- Results can be read visually or spectrophotometrically



Rotavirus Testing

Study 1 — Comparison of Pathfinder® Rotavirus Reagents with another enzyme immunoassay

Pathfinder Reagents	Rotazyme II Assay			
	Spectrophotometric		Visual	
	Positive	Negative	Positive	Negative
Positive	149	59	147	37
Negative	8	191	25	155

Pathfinder Rotavirus		
	Spectrophotometric	Visual
Sensitivity	99.5%	100%
Specificity	99.4%	99.5%
Overall Agreement to Other EIA		

Study 2

Pathfinder Reagents	Latex Agglutination Assay			
	Spectrophotometric		Visual	
	Positive	Negative	Positive	Negative
Positive	27	10	27	13
Negative	0	46	0	43

Pathfinder Rotavirus Reagents with Latex Agglutination		
	Spectrophotometric	Visual
Sensitivity	100%	100%
Specificity	100%	91.5%
Overall Agreement to Latex Agglutination		

Note: Low amounts of rotavirus antigen occasionally show a discrepancy between the visual and spectrophotometric results. Since spectrophotometry is an objective method, it is slightly more accurate than a visual determination.

Rotavirus Direct EIA Procedure

Protocol

1 Tube coated with polyclonal antibody

2 300 µL of control or prepared sample
100 µL of HRP-conjugated Monoclonal Antibody
Incubation: 60 minutes ± 10 minutes at RT
5-7 wash cycles

3 500 µL of chromogen/substrate
Incubation: 15 minutes at room temperature

Read:
Visually (positive – blue, negative – no color)
Spectrophotometrically (add 1mL H₂SO₄, read at 450nm)

Ordering Information

Catalog No.	Description
79673	Pathfinder® Rotavirus EIA..... 50 detections
79481	Rotavirus Positive Control..... 3 mL



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For further information, please contact the Bio-Rad office nearest you or visit our website at www.bio-rad.com.

Clinical Diagnostics Group

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