

# Monoclonal Anti-Rotavirus A VP4 Antibody, Human IgG1 (4E1)

Catalog # VP4-M765



## Source

Monoclonal Anti-Rotavirus A VP4 Antibody, Human IgG1 (4E1) is a chimeric monoclonal antibody recombinantly expressed from HEK293, which combines the variable region of a mouse monoclonal antibody with Human constant domain.

## Clone

4E1

## Isotype

Human IgG1 | Human Kappa

## Conjugate

Unconjugated

## Antibody Type

Recombinant Monoclonal

## Reactivity

Virus

## Immunogen

Recombinant Rotavirus A (strain RVA/Human/United States/Wa/1974/G1P1A[8]) VP4 Protein is expressed from human 293 cells.

## Specificity

Specifically recognizes Rotavirus A VP4.

## Application

Application	Recommended Usage
ELISA	0.06-16 ng/mL

## Purity

>95% as determined by SDS-PAGE.

## Purification

Protein A purified/ Protein G purified

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

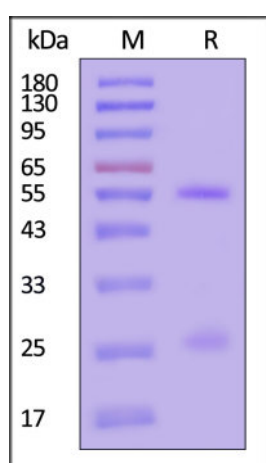
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



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and more!



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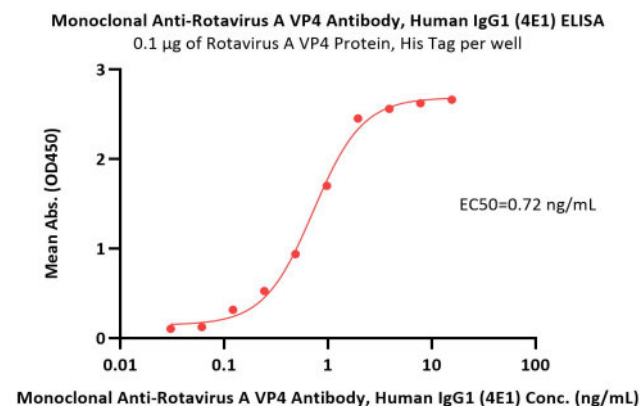
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BIOSYSTEMS  
**Acro**  
Surprise Inside!

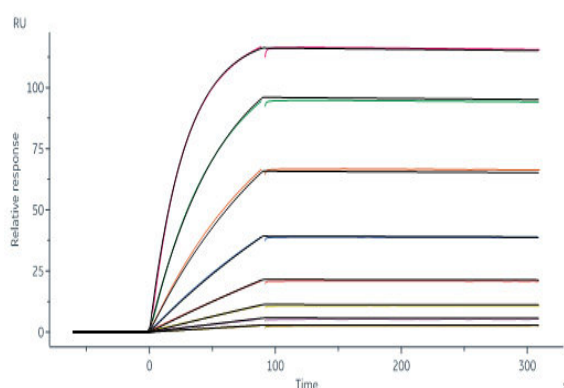
Monoclonal Anti-Rotavirus A VP4 Antibody, Human IgG1 (4E1) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA



Immobilized Rotavirus A VP4 Protein, His Tag (Cat. No. VP4-R5243) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Rotavirus A VP4 Antibody, Human IgG1 (4E1) (Cat. No. VP4-M765) with a linear range of 0.03-2 ng/mL (QC tested).

## Bioactivity-SPR



Monoclonal Anti-Rotavirus A VP4 Antibody, Human IgG1 (4E1) (Cat. No. VP4-M765) captured on Protein A Chip can bind Rotavirus A VP4 Protein, His Tag (Cat. No. VP4-R5243) with an affinity constant of 1.25 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Background

Rotavirus is the leading cause of severe, watery diarrhea in infants and children less than 5 years old. It is estimated that around three-quarters of infants and children had rotavirus diarrhea before the age of 12 months and over millions of them were hospitalized due to the rotavirus infection. The rotavirus has various structural viral protein (VPs) and non-structural protein (NSPs), among them, the VP4 and VP7 together determines the serotypes of the virus, with the VP4 determines the P-type and VP-7 determines the G-type. The reassortment of these proteins leads to the diversity of the rotavirus strains, making the VP4 and VP7 the important target for vaccine studies.

## Clinical and Translational Updates

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