Rotavirus belong to the Reoviridae family and have a genome of 11 double-stranded RNA segments surrounded by a distinctive three-layered icosahedral protein capsid. Rotaviruses generally infect gastrointestinal epithelial cells at the tip of the villus, where they are ingested by the cell in endocytosis via the endosome. Proteins on the surface of the virus disrupt the membrane of the endosome and produce a difference in the Ca^{2+} concentration which leads to structural changes of the epithelial cell and diarrhea. Rotavirus infection leads to gastroenteritis, a self-limiting, mild to severe disease characterized by vomiting, watery diarrhea, low-grade fever and a possible temporary lactose intolerance. The p42 group-specific antigen of rotaviruses is located in the internal capsid on laminar crystalline structures in the nucleus and cytoplasm.

REFERENCES

STORAGE
Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS
Rotavirus virus p42 (4B29) is recommended for detection of Rotavirus virus p42 by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Molecular Weight of Rotavirus virus p42: 42 kDa.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

SOURCE
Rotavirus virus p42 (4B29) is a mouse monoclonal antibody raised against native Rotavirus, with epitope mapping to the P42 major capsid antigen of the MR strain.

PRODUCT
Each vial contains 100 µg IgG2a in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.