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Human Astrovirus Neutralizing Monoclonal Antibody Sequences

Tech ID: 32797 / UC Case 2021-995-0

BACKGROUND

Human astroviruses cause viral gastroenteritis in children, elderly, and immune-compromised individuals. VA1 clade human astroviruses can cause encephalitis or meningitis in immune-compromised individuals. There are no preventative measures or antiviral therapies for human astrovirus disease.

TECHNOLOGY DESCRIPTION

In collaboration with colleagues at the Universidad Nacional Autonoma de Mexico, UC Santa Cruz researchers generated human astrovirus antigens for use in immunizations of mice. They then used those antigens to generate hybridoma cell lines producing human astrovirus-neutralizing monoclonal antibodies that can be the first therapeutic antibodies to prevent or treat human astrovirus disease.

APPLICATIONS

Anti-viral antibody therapeutics

INTELLECTUAL PROPERTY INFORMATION

Country	Type	Number	Dated	Case
Patent Cooperation Treaty	Reference for National Filings	WO 2023/056473	04/06/2023	2021-995

Patent Pending

RELATED MATERIALS

- ▶ [Structures of Two Human Astrovirus Capsid/Neutralizing Antibody Complexes Reveal Distinct Epitopes and Inhibition of Virus Attachment to Cells - 01/12/2022](#)

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [Methods For Production Of The Porcine Astrovirus 4 Capsid Spike Antigen And Its Use In Serological Assays And Vaccines](#)
- ▶ [Glycoengineering Of The Foldon Protein Trimerization Domain To Shield It From Antibody Immune Responses](#)
- ▶ [Simplified Workflow For Hybridoma Antibody Sequencing](#)
- ▶ [Methods To Rapidly Measure Antibodies And Other Biomolecules In Clinical Specimens Utilizing Biolayer Interferometry](#)

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OTHER INFORMATION

KEYWORDS

Therapeutic antibodies, Infectious disease, Astrovirus

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Disease: Infectious Diseases
 - ▶ Therapeutics

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