













# **New Quantitative Nucleic Acid Standards for Norovirus**, Sapovirus, and Astrovirus

Norovirus, Sapovirus, and Astrovirus are common causes of viral gastroenteritis worldwide, frequently resulting in diarrhea, vomiting, abdominal pain, and fever. Because these viruses are difficult to culture from clinical

samples, reverse transcription polymerase chain reaction (RT-PCR) has become the preferred method of detection. This molecular-based assay offers a number of advantages, including high sensitivity and specificity, broad reactivity, fast turnaround time, and low cost.

To support the continual development and evaluation of novel RT-PCR assays, ATCC has expanded its nucleic acid portfolio to include quantitative synthetic RNA for Astrovirus, Sapovirus, and Norovirus genogroups GI & GII. Each of these preparations encompasses key target regions from the genome that are compatible with primers used in existing molecular-based assays, making them ideal for assay development and validation. Further, their quantitative format enables the evaluation of assay sensitivity as well as the generation of a standard curve to determine viral load.

Let ATCC do the work for you with quantitative nucleic acid standards! Visit us online to browse our complete collection of nucleic acids and other tools for enteric disease research.



Webinar: Improving the Detection of Shiga Toxinproducing Escherichia coli



Webinar: ATCC Quantitated **Nucleic Acids** Empowering

Molecular-based **Assay Development**  In this presentation, Dr. Wilder will discuss the clinical and economic significance of food-borne illnesses, the importance of quality control strains in food safety, and ATCC STEC reference materials that support this need.

Watch this webinar on demand

In this webinar, Dr. Tian and Ms. Long will discuss the use of ATCC quantitative nucleic acids as reliable and sustainable controls in oncology molecular diagnostic assays, infectious disease research, and quality control testing.

September 22, 2016 12:00 PM ET. Register for the webinar



## Clostridium difficile Research Tools

People receiving medical care accompanied with antibiotics are at risk for healthcare-associated infection (HAI). One cause of HAI is *Clostridium difficile*, which contributes to

diseases such as pseudomembranous colitis, toxic megacolon, colon perforations, sepsis, and death.

To support the development and validation of diagnostic tools that detect this bacterial species, ATCC offers a number of *C. difficile* strains representing each of the known *C. difficile* toxinotypes. These strains are fully authenticated and have been evaluated for toxinotype, ribotype, and the presence of the *tcdA*, *tcdB*, and *cdtB* genes.

Browse our *C. difficile* collection in the <u>ATCC<sup>®</sup> Multidrug-Resistant and Antimicrobial Testing Reference Strains brochure</u>, or visit us online at <u>www.atcc.org</u> to order these strains today!



### **Quiz the Scientist**

I am the most common cause of diarrheal disease in infants and young children. I have eight species. Can you guess what I am?

Click here for more clues.



## ATCC Puzzle

Test your microbial

expertise with the ATCC puzzle!

Download the puzzle

### **Publications**

- ATCC Culture Guides
- Quantitative Nucleic Acids
- Enteric Disease Research Materials
- Development of Improved Synthetic Molecular Standards for Norovirus

Still puzzled?

View the answers to last month's puzzle

Genogroups I and II



# **Frequently Asked Questions**

Q: Which primers and probe did ATCC use to confirm the identity of the Synthetic Sapovirus

RNA (<u>ATCC<sup>®</sup> VR-3237SD™</u>)?

A: : The following primers and probe were used (Oka T, et al. J Med

Virol 78(10): 1347-1353, 2006):

Forward: GAYCASGCTCTCGCYACCTAC Reverse: CCCTCCATYTCAAACACTA

Probe: CCRCCTATRAACCA Y = C/T; S = G/C; R = A/G

Have more questions?

### **Quality Control**

#### **Assay Development**

#### **Multidrug Resistance**

#### Microbiology Resources

#### View from the Petri Dish

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Image of Histoplasma capsulatum fungal courtesy of CDC.

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