

**foodproof**<sup>®</sup>

## Norovirus (GI, GII) plus Hepatitis A Virus Detection Kit

Food- and waterborne outbreaks involving hepatitis A virus (HAV) and norovirus (NoV) have been linked to different contaminated matrices, including berries, fruits and vegetables, seafood and fish, meat, dairy products and drinking water. Outbreaks are frequently observed in community facilities, such as commercial kitchens and school cafeterias.

The unique, all-in-one, multiplex real-time RT-PCR test, **foodproof Norovirus (GI, GII) plus Hepatitis A Virus Detection Kit** allows simultaneous, qualitative detection and differentiation of HAV, NoV (Genogroups I and II) and a process control, the bacteriophage MS2. Both viruses are available separately as detection kits for norovirus GI and GII, and for hepatitis A virus only. Each kit includes a process control, which can be added to the sample. The virus kits allow simple and safe detection of viral RNA and process control for each sample in parallel.

**Sensitive:** Very high sensitivity, GMO-free MS2 process control can be used for calculation of recovery rate.

**Easy:** Optimized virus concentration protocols, automated RNA extraction, simple PCR setup and convenient one-step real-time RT PCR.

**Cost and Time Savings:** Unique all-in-one multiplex detection of norovirus GI, GII and hepatitis A virus.

**Robust:** Reliable detection of low target amounts in presence of high amounts of other target (mixed infection).

**Safe:** Validated workflow according to ISO/TS 15216, with all controls included.

### Specificity

100% specificity; 10 different virus species have been tested, comprising several virus families with RNA and DNA genomes.

### Sensitivity

Limit of detection (LOD): 3 virus copies per reaction for HAV and NoV GI RNA and 10 virus copies per reaction for NoV GII RNA.

### Matrices

Multiple food matrices tested, including berries, fruit, minced meat, water and seafood (e.g., Pacific oysters, shrimp, mussels, tuna steaks).

Supported by:



Federal Ministry  
for Economic Affairs  
and Energy

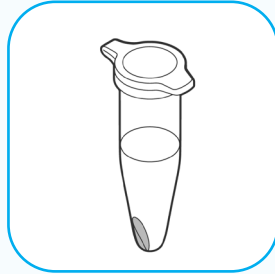
on the basis of a decision  
by the German Bundestag

## Workflow



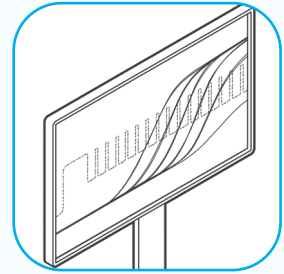
### Virus Concentration

E.g., bottled water, berries or mussels



### RNA Extraction

Duration depending on protocol and number of samples



### Real-Time PCR

150 min

## RNA Extraction Kits

### Manual

**foodproof** Sample Preparation Kit IV  
KIT 2301 85

### Automated

**foodproof** Magnetic Preparation Kit VI  
KIT 2301 90

## Real-Time PCR Kits

**foodproof** Norovirus (GI, GII) plus Hepatitis A Virus Detection Kit  
KIT 2300 56

**foodproof** Hepatitis A Virus Detection Kit  
KIT 2300 54

**foodproof** Norovirus Detection Kit (GI, GII)  
KIT 2300 55

### Tests

50

480

### Instrument Compatibility

e.g., Dualo 32® R<sup>2</sup>, LightCycler® 480, LightCycler® 96, AriaMx, Bio-Rad CFX96™, Applied Biosystems™ 7500 Fast, QuantStudio™

Other cyclers on request.

### Tests

64

64

64



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