

VIASURE

Shigella/EIEC Real Time PCR Detection Kit

Pathogen and product description

S*higella* species are gram-negative organisms which annually cause an estimated 165 million cases of shigellosis worldwide, resulting in 1 million deaths. Shigellosis is a kind of bacillary dysentery characterized by severely bloody and mucus-containing diarrhea. The disease is caused by any of the four species of *Shigella* (*S. dysenteriae*, *S. flexneri*, *S. boydii*, and *S. sonnei*) and even by enteroinvasive *Escherichia coli* (EIEC). In fact the differentiation of *Shigella* and enteroinvasive *E. coli* is complicated due to the ability of the last one to cause dysentery and the use of the same method of invasion.

Shigella is a significant agent of food-

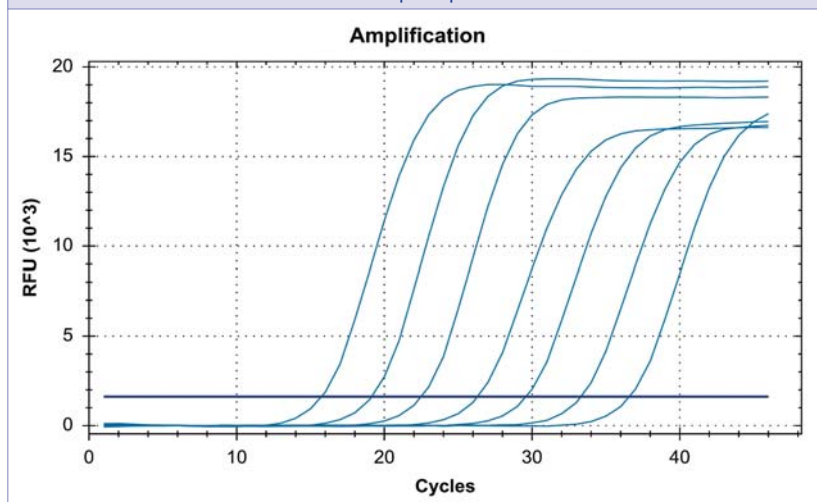
borne illness, especially with foods that require hand processing and/or are prepared from raw or previously cooked products without re-heating. The low infectious dose (10 cells), allows the disease to be spread effectively by infected food or water, and also by person-to-person contact.

VIASURE *Shigella*/EIEC Real time PCR Detection Kit is designed for the diagnosis of shigellosis caused by *Shigella*/EIEC in human stool samples. After DNA isolation, the identification of *Shigella*/EIEC is performed by the use of target specific primers and a fluorescent-labeled probe that hybridizes to a conserved region with the *ipaH* gene.



Analytical sensitivity

VIASURE *Shigella/EIEC* Real Time PCR Detection Kit has a detection limit of ≥ 10 DNA copies per reaction



Dilution series of *Shigella/EIEC* (10^7 – 10^1 copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System.

Components

Reagent/Material	Description	Quantity
<i>Shigella/EIEC</i> 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	6/12 x 8-well strip
<i>Shigella/EIEC</i> 96-well plate	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format	1 plate
Rehydration Buffer	Solution to reconstitute the stabilized product	1 vial x 1,8 mL
<i>Shigella/EIEC</i> Positive Control	Non-infectious synthetic lyophilized DNA	1 vial
Negative Control	Non template control	1 vial x 1 mL
Water RNase/DNase free	Water RNase/DNase free	1 vial x 1 mL
Tear-off 8-cap strips	Optical caps for sealing wells during thermal cycling	6/12 x 8 cap strip
Shell Frame Grid	Shell Frame Grid	1 or 2

Kit References

Reference	Description
VS-SHY106L	Viasure <i>Shigella/EIEC</i> Real Time PCR Detection Kit 6 x 8-well strips, low profile
VS-SHY106H	Viasure <i>Shigella/EIEC</i> Real Time PCR Detection Kit 6 x 8-well strips, high profile
VS-SHY112L	Viasure <i>Shigella/EIEC</i> Real Time PCR Detection Kit 12 x 8-well strips, low profile
VS-SHY112H	Viasure <i>Shigella/EIEC</i> Real Time PCR Detection Kit 12 x 8-well strips, high profile
VS-SHY113L	Viasure <i>Shigella/EIEC</i> Real Time PCR Detection Kit 96-well plate, low profile
VS-SHY113H	Viasure <i>Shigella/EIEC</i> Real Time PCR Detection Kit 96-well plate, high profile

Work Flow

One-step rehydration of wells and add your extracted DNA



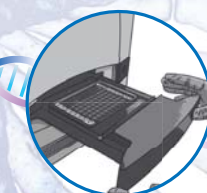
STEP 1
Separate the number of required strips you need



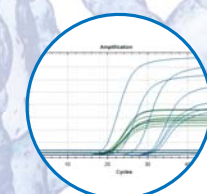
STEP 2
Add 15 μ l of rehydration buffer into each well



STEP 3
Add 5 μ l of DNA sample / positive control / negative control



STEP 4
Load the strips into the thermocycler and run the specified protocol



STEP 5
Interpretate results