

VIASURE MULTIPLEX

Blastocystis hominis + *Dientamoeba fragilis* Real Time PCR Detection Kit

Pathogen and product description

D*ientamoeba fragilis* has been associated with gastrointestinal disease worldwide, showing symptoms such as diarrhea, loose stools and/or abdominal pain with a highly variable incidence, ranging from 1.1 to 20%. Its way of transmission remains unclear, and both the faecal-oral and vector transmission routes have been suggested.

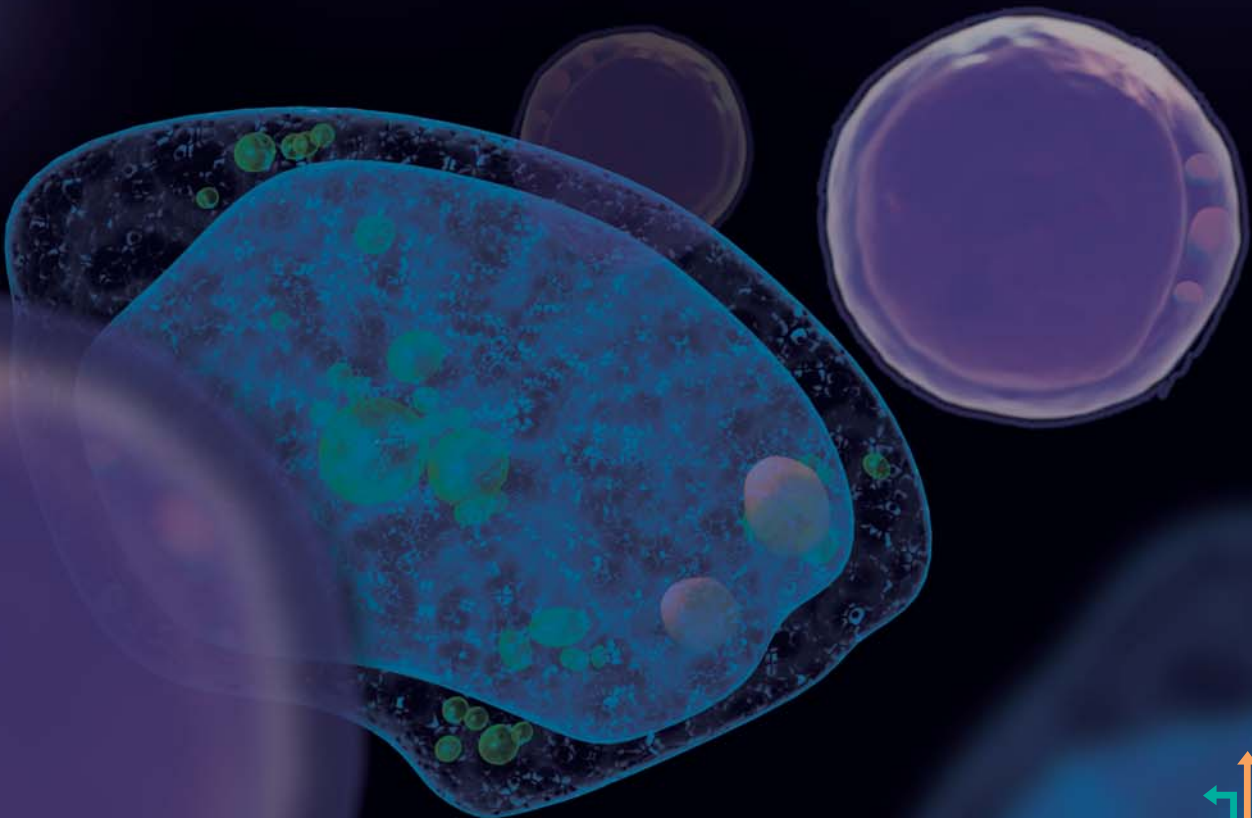
Despite the frequency when encountering *D. fragilis*, it is still neglected as a significant pathogen due to the lack of routinary diagnostics in many laboratories.

Blastocystis hominis pathogenicity remains controversial due to non-specific symptoms such as abdominal pain, nausea, vomiting, anorexia, flatulence, bloating, weight loss, acute or chronic diarrhea and urticarial. In fact, recent microbiome and metagenomics studies suggest that *Blastocystis* colonization is usually associated with a healthy gut microbiota, rather than with the gut dysbiosis generally observed in

metabolic or inflammatory diseases such irritable bowel syndrome (IBS). However, symptomatic *Blastocystis* infections have been more commonly encountered amongst these patients as well as HIV/AIDS and other immunocompromised individuals.

VIASURE *Blastocystis hominis* + *Dientamoeba fragilis* Real Time PCR Detection Kit is designed for the diagnosis of the *Blastocystis hominis* and *Dientamoeba fragilis* in human stool samples. After DNA isolation, the identification of *Blastocystis hominis* and *Dientamoeba fragilis* is performed by the amplification of a conserved region of the 18S rRNA gene, using specific primers and a fluorescent-labelled probe.

VIASURE *Blastocystis hominis* + *Dientamoeba fragilis* Real Time PCR Detection Kit contains in each well all the components necessary for real time PCR assay in a stabilized format, as well as an internal control to discard the inhibition of the polymerase activity.



Analytical sensitivity

VIASURE *Blastocystis hominis* + *Dientamoeba fragilis* Real Time PCR Detection Kit has a detection limit of ≥ 10 DNA copies per reaction for *Blastocystis hominis* and *Dientamoeba fragilis* (figures 1 and 2).

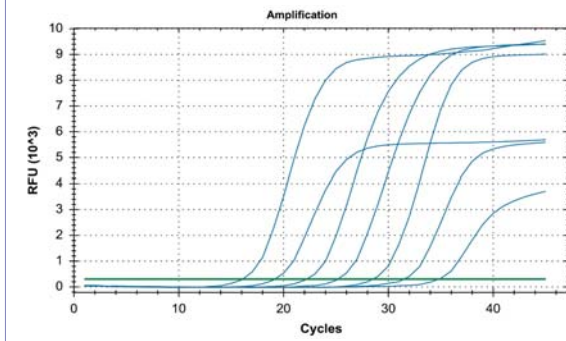


Figure 1. Dilution series of *Blastocystis hominis* 10^7 – 10^2 copies/rxn template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (ROX channel).

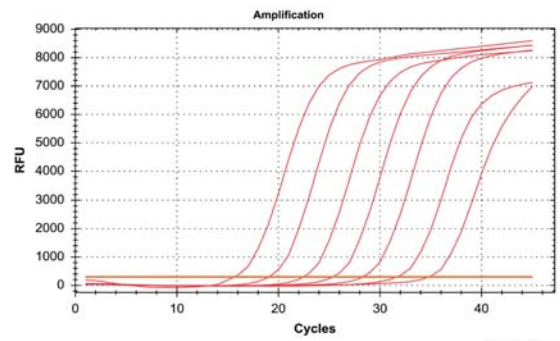


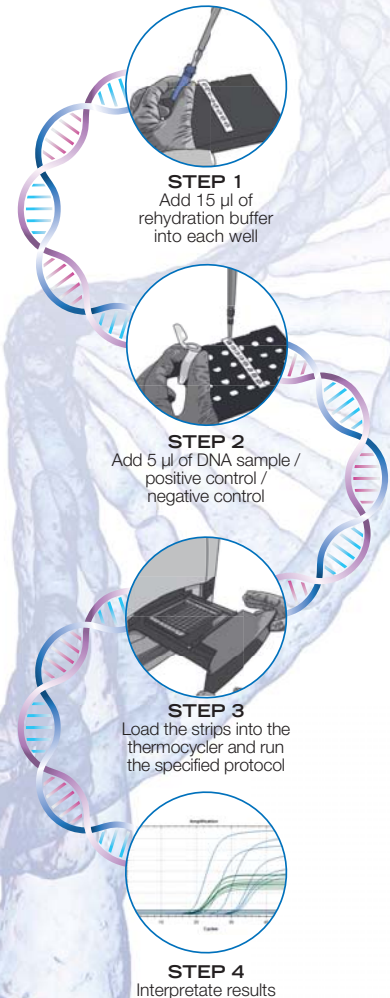
Figure 2. Dilution series of *Dientamoeba fragilis* (10^7 – 10^1 copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (FAM channel).

Components

| Reagent/Material | Description | Colour | Quantity |
|--|--|-------------|---------------------|
| <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> 8-well strips | A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format | White | 6/12 X 8-well strip |
| <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> 96-well plate | A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and Internal control in stabilized format | White | 1 plate |
| Rehydration Buffer | Solution to reconstitute the stabilized product | Blue | 1 vial x 1,8 mL |
| <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> Positive Control | Non-infectious synthetic lyophilized cDNA | Red | 1 vial |
| Negative Control | Non template control | Violet | 1 vial x 1 mL |
| Water RNase/DNAse free | Water RNase/DNAse free | White | 1 vial x 1 mL |
| Tear-off 8-cap strips | Optical caps for sealing Wells during thermal cycling | Transparent | 6/12 x 8-cap strip |

Work Flow

One-step rehydration of wells and add your extracted DNA



Kit References

| Reference | Description |
|------------|--|
| VS-BLD106L | Viasure <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> Real Time PCR Detection Kit 6 x 8-well strips, low profile |
| VS-BLD106H | Viasure <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> Real Time PCR Detection Kit 6 x 8-well strips, high profile |
| VS-BLD112L | Viasure <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> Real Time PCR Detection Kit 12 x 8-well strips, low profile |
| VS-BLD112H | Viasure <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> Real Time PCR Detection Kit 12 x 8-well strips, high profile |
| VS-BLD113L | Viasure <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> Real Time PCR Detection Kit 96-well plate, low profile |
| VS-BLD113H | Viasure <i>Blastocystis hominis</i> + <i>Dientamoeba fragilis</i> Real Time PCR Detection Kit 96-well plate, high profile |



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