

# VIASURE MULTIPLEX

## *H. ducreyi* + *C. trachomatis* (LGV) Real Time PCR Detection Kit

### Pathogen and product description

**H***aemophilus ducreyi* is the causative agent of chancroid, a genital ulcer disease (GUD). The organism is usually spread during sexual intercourse through microabrasions, and the disease usually manifests as multiple painful superficial ulcers associated with inguinal lymphadenitis. As a result of the painful nature of the lesions, patients usually seek immediate treatment, and asymptomatic carriage is therefore uncommon. In addition to causing GUD, *H. ducreyi* has been found in several recent studies to be a major cause of chronic skin ulceration in children from developing countries.

Chancroid or soft chancre is a sexually transmitted disease (STD) of humans, characterized by painful genital ulcers. The primary ulcer is often followed by multiple lesions, which can extend the duration of the illness to 1-3 months if appropriate treatment is not given.

*Chlamydia trachomatis* (Ct) is a gram-negative obligate intracellular pathogen responsible for over 110 million global sexually transmitted disease (STD) cases annually, with sequelae including pelvic inflammatory

disease (PID), ectopic pregnancy, and infertility. Ct is also responsible for outbreaks of lymphogranuloma venereum (LGV) and trachoma, a chronic ocular disease that can lead to blindness.

LGV is caused by specific serovars of *Chlamydia trachomatis* (L1, L2 and L3) and these strains are associated with a more chronic and invasive infection than other serovars. Although LGV symptoms can vary according to site of entry and stage of infection, genital ulceration and inguinal lymphadenopathy are the classical presentations of this disease.

VIASURE *H. ducreyi* + *C. trachomatis* (LGV) Real Time PCR Detection Kit is designed for the diagnosis of *Haemophilus ducreyi* and/or *Chlamydia trachomatis* (LGV strains) in clinical samples. After DNA isolation, the identification of *Haemophilus ducreyi* and LGV-associated strains of *Chlamydia trachomatis* is performed by the amplification of a conserved region of the 16S rRNA gene for *Haemophilus ducreyi* and *pmpH* gene for LGV-associated *C. trachomatis* serovars, using specific primers and a fluorescent-labelled probe.



**Analytical sensitivity**

**VIASURE *H. ducreyi + C. trachomatis (LGV)* Real Time PCR Detection Kit** has a detection limit of  $\geq 10$  DNA copies per reaction for *H. ducreyi + C. trachomatis*. (figures 1 and 2).

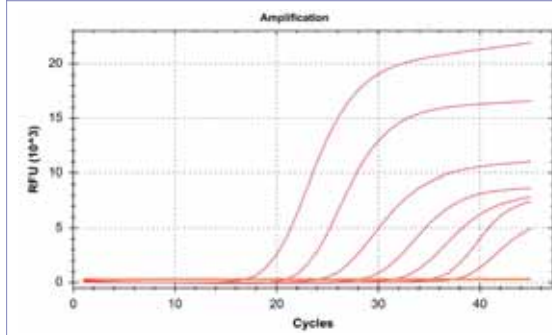


Figure 1. Dilution series of *H. ducreyi* ( $10^7$ – $10^1$  copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (channel ROX).

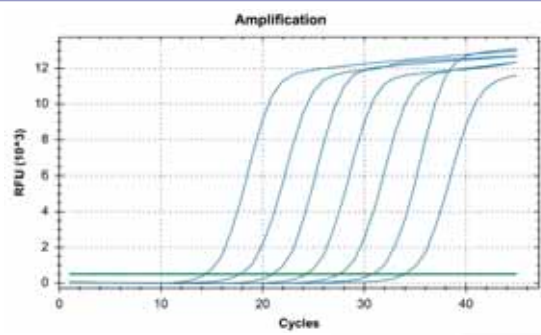


Figure 2. Dilution series of *C. trachomatis (LGV)* ( $10^7$ – $10^1$  copies/rxn) template run on the Bio-Rad CFX96™ Real-Time PCR Detection System (channel FAM).

**Components**

Reagent/Material	Description	Colour	Quantity
<i>H. ducreyi + C. trachomatis (LGV)</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
Rehydration Buffer	Solution to reconstitute the stabilized product	Blue	1 vial x 1,8 mL
<i>H. ducreyi + C. trachomatis (LGV)</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



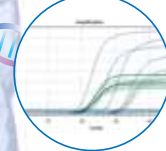
**STEP 1**  
Add 15  $\mu$ l of rehydration buffer into each well



**STEP 2**  
Add 5  $\mu$ l of DNA sample / positive control / negative control



**STEP 3**  
Load the strips into the thermocycler and run the specified protocol



**STEP 4**  
Interpretate results

**Kit References**

Reference	Description
VS-HCT106L	Viasure <i>H. ducreyi + C. trachomatis (LGV)</i> Real Time PCR Detection Kit 6 x 8-well strips, low profile
VS-HCT106H	Viasure <i>H. ducreyi + C. trachomatis (LGV)</i> Real Time PCR Detection Kit 6 x 8-well strips, high profile
VS-HCT112L	Viasure <i>H. ducreyi + C. trachomatis (LGV)</i> Real Time PCR Detection Kit 12 x 8-well strips, low profile
VS-HCT112H	Viasure <i>H. ducreyi + C. trachomatis (LGV)</i> Real Time PCR Detection Kit 12 x 8-well strips, high profile
VS-HCT113L	Viasure <i>H. ducreyi + C. trachomatis (LGV)</i> Real Time PCR Detection Kit 96-well plate, low profile
VS-HCT113H	Viasure <i>H. ducreyi + C. trachomatis (LGV)</i> Real Time PCR Detection Kit 96-well plate, high profile



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