

VIASURE MULTIPLEX

H. influenzae + S. pneumoniae + M. catarrhalis Real Time PCR Detection Kit

Pathogen and product description

Haemophilus influenzae, Streptococcus pneumoniae and Moraxella catarrhalis are the most common bacterial pathogens in upper and lower respiratory tract infections. Bacterial pathogens adhere to mucous membranes and colonization ensues. In an otherwise healthy individual the host immune system responds to the invading bacteria resulting in edema and swelling. If antimicrobial treatment does not eradicate the invading organisms and successfully interrupt the progress of the infection, the patient may develop recurrent or chronic disease.

Haemophilus influenzae, can cause severe invasive disease, including meningitis, pneumonia, and septicemia. NTHi strain accounts for a high

proportion of all *H. influenzae* infections because it causes invasive infections, as well as, a notable number of noninvasive diseases, such as otitis media and sinusitis.

Streptococcus pneumoniae is the major pathogen implicated in community-acquired pneumonia (CAP) in adults and children. Furthermore infections caused by this pathogen include meningitis, bacteremia, bronchitis, sinusitis, and otitis media.

Moraxella catarrhalis is an important aetiological agent of otitis media (OM) in infants and children, and acute exacerbations of chronic obstructive pulmonary disease (COPD) in the elderly and heavy smokers.



THE REAL ONE STEP qPCR

H. influenzae + *S. pneumoniae* + *M. catarrhalis* Real Time PCR Detection Kit



Analytical sensitivity

VIASURE *H. influenzae* + *S. pneumoniae* + *M. catarrhalis* Real Time PCR Detection Kit has a detection limit of ≥ 10 DNA copies per reaction for *H. influenzae*, *S. pneumoniae* and *M. catarrhalis* (Figures 1, 2 and 3).

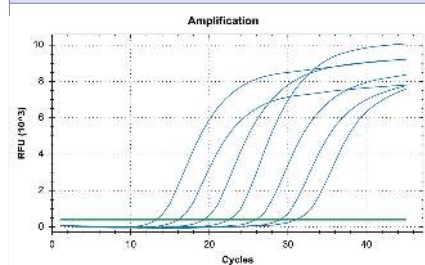


Figure 1. Dilution series of *H. influenzae* (10^7 – 10^1 copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (channel FAM).

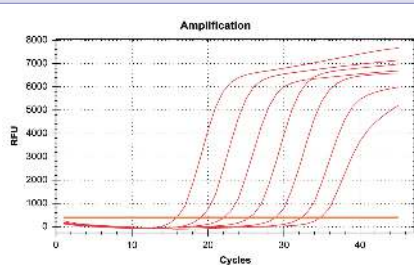


Figure 2. Dilution series of *S. pneumoniae* (10^7 – 10^1 copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (channel ROX).

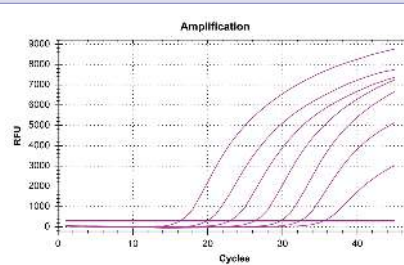


Figure 3. Dilution series of *M. catarrhalis* (10^7 – 10^1 copies/rxn) template run on the Bio-Rad CFX96 Touch™ Real-Time PCR Detection System (channel Cy5).

Components

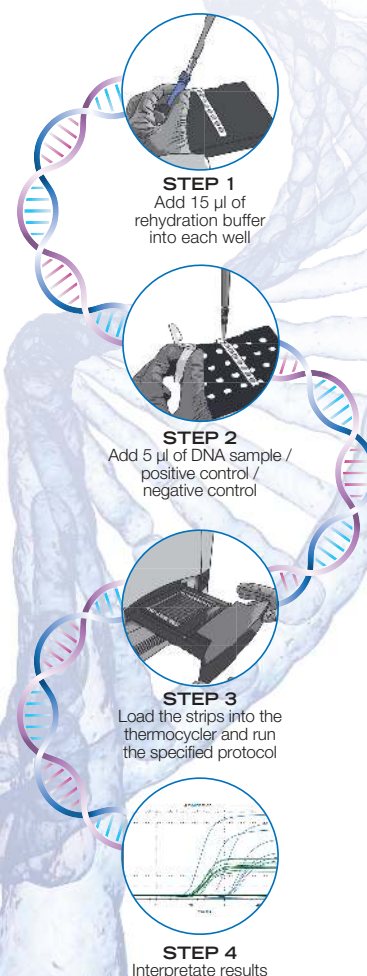
Reagent/Material	Description	Colour	Quantity
<i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</i> 8-well strips	A mix of enzymes, primers-probes, buffer, dNTPs, stabilizers and internal control in stabilized format	White	6/12 x 8-well strip
Rehydration Buffer	Solution to reconstitute the stabilized product	Blue	1 vial x 1,8 mL
<i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</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	RNase/DNase free water	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

Kit References

Reference	Description
VS-HSM106L	VIASURE <i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</i> Real Time PCR Detection Kit 6 x 8-well strips, low profile
VS-HSM106H	VIASURE <i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</i> Real Time PCR Detection Kit 6 x 8-well strips, high profile
VS-HSM112L	VIASURE <i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</i> Real Time PCR Detection Kit 12 x 8-well strips, low profile
VS-HSM112H	VIASURE <i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</i> Real Time PCR Detection Kit 12 x 8-well strips, high profile
VS-HSM113L	VIASURE <i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</i> Real Time PCR Detection Kit 96-well plate, low profile
VS-HSM113H	VIASURE <i>H. influenzae</i> + <i>S. pneumoniae</i> + <i>M. catarrhalis</i> Real Time PCR Detection Kit 96-well plate, high profile

Work Flow

One-step rehydration of wells and add your extracted DNA



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