

# LEGIONELLA PNEUMOPHILA

## REAL TIME DNA DETECTION KIT

### PCR Real Time Kit for the qualitative and quantitative detection of *Legionella pneumophila* DNA in environmental samples

Product code: IC-02-3000 (50 reactions) / IC-02-3002 (100 reactions)

#### Description

*LEGIONELLA PNEUMOPHILA REAL TIME DNA DETECTION KIT* allows the qualitative and quantitative detection of *Legionella pneumophila* DNA discriminating it from other bacterial species, *Legionellaceae* and not, that are normally present in same biological habitat.

The PCR Real Time reaction detects a specific DNA sequence of *L. pneumophila*. The amplified fragments is detectable in real time through fluorescence generated by hybridization probe marked with FAM fluorophore. In each reaction is present an internal DNA control that amplifies with the sample and it is detect by hybridization probe marked with JOE fluorophore, to avoid false negative results.

#### Technical features

<b>Number of tests</b>	50/100 reactions
<b>Kit content</b>	Mix Test LP ( with duplex inhibition control) – 4 genomic standards – sterile H <sub>2</sub> O DNase free
<b>Specificity</b>	the test specifically detects DNA from 11 serogroups of <i>Legionella pneumophila</i> subsp. <i>pneumophila</i> , DNA from <i>Legionella pneumophila</i> Serogroups 7 and from <i>Legionella pneumophila</i> subsp. <i>fraseri</i> and subsp. <i>pascullei</i> discriminating from the other bacterial species belonging to <i>Legionellaceae</i> and not. See below Tables 1 and 2.
<b>Sensibility</b>	<b>LOQ:</b> up to 25 Genomic Units ( <b>UG</b> ) of <i>Legionella pneumophila</i> . <b>LOD:</b> up to 5 <b>UG</b> of <i>Legionella pneumophila</i> .
<b>Detection</b>	probe labelled with fluorescent dyes (Taqman®) – FAM and JOE

**Table 1 - *Legionella pneumophila* strains used for testing the kit functionality:**

Legionella pneumophila subsp. pneumophila - Sgp.1- ATCC: 33152	Legionella pneumophila subsp. pneumophila - Sgp.12 - ATCC: 43290
Legionella pneumophila subsp. pneumophila - Sgp.2 - ATCC: 33154	Legionella pneumophila subsp. pneumophila - Sgp.13 - ATCC: 43736
Legionella pneumophila subsp. pneumophila - Sgp.3 - ATCC: 33155	Legionella pneumophila subsp. pneumophila - Sgp.14 - ATCC: 43703
Legionella pneumophila subsp. pneumophila - Sgp.6 - ATCC: 33215	Legionella pneumophila - Sgp.7 - ATCC: 33823
Legionella pneumophila subsp. pneumophila - Sgp.8 - ATCC: 35096	Legionella pneumophila subsp. fraseri - Sgp.4 - ATCC: 33156
Legionella pneumophila subsp. pneumophila - Sgp.9 - ATCC: 35289	Legionella pneumophila subsp. fraseri - Sgp.5 - ATCC: 33216
Legionella pneumophila subsp. pneumophila - Sgp.10 - ATCC: 43283	Legionella pneumophila subsp. Pascullei - Type strain/Sgp.5 - ATCC: 33737
Legionella pneumophila subsp. pneumophila - Sgp.11 - ATCC: 43130	

**Table 2 - *Legionellaceae* and not *Legionellaceae* strains used for testing the absence of amplification:**

Legionella anisa - ATCC: 35292	Aeromonas hydrophila - ATCC: 7966
Legionella birminghamensis - ATCC: 43702	Alcaligenes faecalis subsp. faecalis - ATCC: 8750
Legionella bozemanæ/Fluoribacter bozemanæ - ATCC: 33217	Bacillus subtilis subsp. subtilis - ATCC: 6051
Legionella bozemanæ/Fluoribacter bozemanæ - ATCC: 35545	Burkholderia cepacia - ATCC: 25416
Legionella cherrii - ATCC: 35252	Clostridium perfringens - ATCC: 13124
Legionella dumoffii - ATCC: 33279	Enterobacter aerogenes - ATCC: 13048
Legionella feeleeii - ATCC: 35072	Escherichia coli
Legionella gormanii/Fluoribacter gormanii - ATCC: 33297	Klebsiella oxytoca - ATCC: 13182
Legionella hackeliae - ATCC: 35250	Flavobacterium aquatile - ATCC: 11947
Legionella maceachernii/Tatlockia maceachernii - ATCC: 35300	Listeria monocytogenes - ATCC: 15313
Legionella micdadei/Tatlockia micdadei - ATCC: 33218	Proteus vulgaris - ATCC: 29905
Legionella lansingensis - ATCC: 49751	Pseudomonas aeruginosa - ATCC: 10145
Legionella longbeachae - ATCC: 33462	Pseudomonas fluorescens - ATCC: 13525
Legionella jordanis - ATCC: 33623	Pseudomonas putida - ATCC: 12633
Legionella oakridgensis - ATCC: 33761	Serratia marcescens - ATCC: 13880
Legionella parisiensis - ATCC: 35299	Stenotrophomas maltophilia/Xanthomonas maltophilia - ATCC: 13637
Legionella sainthelensi - ATCC: 35248	Xanthomonas campestris pathovar campestris - ATCC: 33913
Legionella tucsonensis - ATCC: 49180	