

TRUPCR® Respiratory Pathogen Panel Kit

NEED

According to the WHO, respiratory infectious diseases take first place in the ranking of the burden of disease measured by years lost through death or disability. Lower respiratory tract infections represent the third leading cause of death in the world. Respiratory infectious diseases are responsible for approximately 70% of under-five years of childhood morbidities in developing countries. Every year, influenza leads to respiratory tract infections in 5–15% of the population and severe illness in 3–5 million people. It accounts for 3%–5% of deaths in adults. Rapid and accurate identification of the causative agent of respiratory tract infections may improve patient management by informing timely and effective antibiotic or antiviral therapy, preventing secondary spread of infection, shortening hospital stays and reducing costs of unnecessary ancillary tests.

Respiratory tract infections

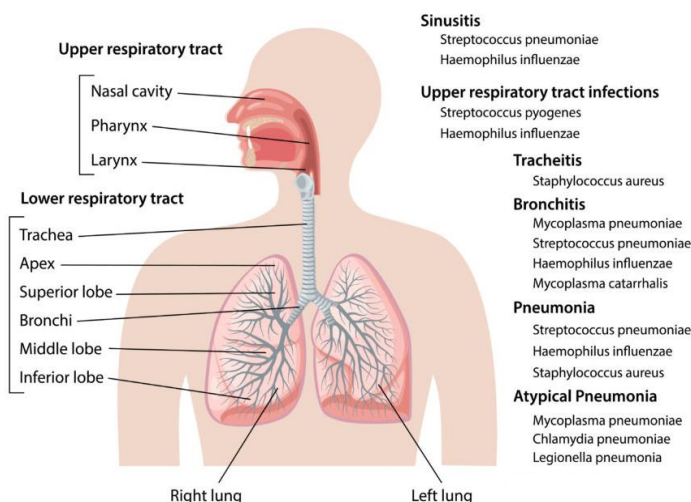


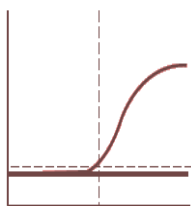
Image Source: <https://www.docwirenews.com/wp-content/uploads/2022/08/22054-5-4-768x576.jpg>

SOLUTION BY TRUPCR®

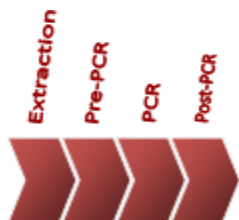
TRUPCR® Respiratory Pathogen Panel Kit accurately identifies 31 different pathogens from respiratory specimens (BAL/ Tracheal aspirate/ Sputum/ Nasopharyngeal aspirate in VTM vial) using Real time PCR. The human *RNaseP* gene serves as an endogenous internal control for human nucleic acid, also included in this kit.

TRUPCR® Respiratory Pathogen Panel Kit is based on amplification of conserved region of the microbial genome. There is a multiplexing reaction running in parallel in each tubes to detect different targets with the help of four different dyes (FAM/Green, Yellow/HEX/VIC, Orange/ROX/TEX Red & Red/Cy5). The main advantages of this assay are its higher sensitivity and specificity compared with other diagnostic methods, as well as its rapidity and possibility of automation.

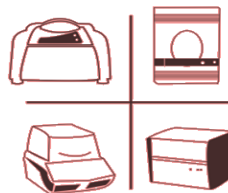
KEY FEATURES



Endogenous Internal Control incorporated within the kit to ensure reliable results



Complete workflow solution available from Extraction of sample to Post-PCR analysis



Platform agnostic as compatible with various platforms



Rapid and reliable results within 100-120 minutes after PCR Start

TARGET PATHOGENS

Primer Probe Mix	Detection	Primer Probe Mix	Detection	Reporter
PPM-1	<i>Staphylococcus aureus</i>	PPM-5	Parainfluenza virus 1	FAM
	<i>Streptococcus pneumoniae</i>		Parainfluenza virus 2	HEX
	<i>Klebsiella pneumonia</i>		Parainfluenza virus 3	Tex Red
	<i>Mycoplasma pneumonia</i>		Parainfluenza virus 4	Cy5
PPM-2	<i>Salmonella spp.</i>	PPM-6	Influenza A virus	FAM
	<i>Streptococcus pyogenes</i>		Enterovirus	HEX
	<i>Bordetella spp.</i>		Influenza A (H3N2) virus	Tex Red
	<i>Chlamydia pneumonia</i>		Human Metapneumoviruses (A/B)	Cy5
PPM-3	<i>Streptococcus agalactiae</i>	PPM-7	Pandemic H1N1 influenza virus (PDM H1N1)	FAM
	<i>Acinetobacter baumannii</i>		<i>RNaseP</i> Gene	HEX
	<i>Pseudomonas aeruginosa</i>		Influenza B virus	Tex Red
	<i>Legionella pneumophila</i>		Influenza C virus	Cy5
PPM-4	<i>Haemophilus influenzae (A-F)</i>	PPM-8	Human adenovirus	FAM
	<i>Moraxella catarrhalis</i>		Human respiratory syncytial viruses (A/B)	HEX
	Human Parechovirus		Human rhinovirus	Tex Red
	Human coronavirus (alpha & beta)		Human bocavirus	Cy5

TECHNICAL SPECIFICATIONS

- Sample Type – BAL/ Tracheal aspirate/ Sputum/ Nasopharyngeal aspirate in VTM vial
- Clinical Validation – Validated on more than 500 clinical samples
- LOD Data: 10³ copies/ml
- Compatible Instruments – Applied Biosystems™ 7500 series, Applied Biosystems™ StepOne series, Applied Biosystems™ QuantStudio® series, Rotor-Gene Q, Bio-Rad CFX96

CLINICAL DATA

		Reference Method		
		Positive	Negative	Total
TRUPCR Method	Positive	146	1	147
	Negative	3	60	63
Total		149	61	210

Parameters	Estimate
Sensitivity	98.00%
Specificity	98.36%
Positive Predictive Value	99.32%
Negative Predictive Value	95.24%



ORDERING INFORMATION

Cat. No.	Description	Size
3B287	TRUPCR® Respiratory Pathogen Panel Kit	48 Reactions
3B288	TRUPCR® Respiratory Pathogen Panel Kit	96 Reactions