

Scienetix RPP 4-Plex PCR Assay for Clinical Application

About the Kit:

The Scienetix RPP (Respiratory Pathogen Panel) 4-Plex PCR Assay is a multiplexed molecular diagnostic solution designed for clinical labs as a Laboratory Developed Test (LDT). Engineered to accurately identify a wide spectrum of respiratory pathogens in a single, streamlined run, this comprehensive panel empowers clinicians with rapid, actionable insights—ultimately improving patient care and reducing healthcare burdens.

Key Highlights:

• Broad Coverage:

- Simultaneous detection of a wide array of respiratory viruses including coronaviruses (229E, HKU1, OC43, NL63), influenza (A, B, H1N1swl), RSV, rhinovirus, parainfluenza viruses (1-4), adenovirus, and bocavirus.
- o Identifies bacterial pathogens frequently implicated in respiratory illness, such as *Klebsiella pneumoniae*, *Mycoplasma pneumoniae*, *Haemophilus influenzae*, *Staphylococcus aureus* (MecA), *Streptococcus pneumoniae*, and *Bordetella* species.

• High Specificity & Sensitivity:

- \circ Each target confidently detected at as low as 10 copies/ μL , ensuring early and accurate identification of pathogens.
- o No cross-reactivity with normal flora, guaranteeing clean, reliable results.

• Robust Linearity:

o Excellent quantitative performance ($R^2 > 0.98$) across a wide dynamic range (100,000 copies/ μL down to 1 copy/ μL).

• Flexible Sample Types:

• Effective detection from oropharyngeal and nasopharyngeal swabs in BD E-Swab Liquid, using standard nucleic acid extraction protocols.

• Stable Sample Handling:

 Maintains sample integrity up to 7 days at refrigerated or frozen conditions, and 1 day at room or elevated temperatures.

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RPP 4-Plex PCR Assay Panel

| Panel | MM# | FAM | SUN | CY5 | TxRed |
|--------|-----|----------------------------------|---|------------------------------|--|
| RPP-1 | 1 | Human Coronavirus 229E | Human Coronavirus HKU1 | Human Coronavirus OC43 | Human Coronavirus NL63 |
| RPP-2 | 2 | Human Parechovirus (GHPR4) | Parechovirus | Adenovirus | Bocavirus |
| RPP-3 | 3 | Parainfluenza Virus 1 | Parainfluenza Virus 2 | Parainfluenza Virus 4 | Parainfluenza Virus 3 |
| RPP-4 | 4 | Ribonuclease P (RNase P) | Influenza A H1N1 Swine-like | Rhinovirus | Human Respiratory Syncytial Virus (RSV) |
| RPP-5 | 5 | Influenza A Virus | Influenza B Virus | Rhinovirus/Ente rovirus | SARS-CoV-2 |
| RPP-6 | 6 | Enterovirus A71 | Mycoplasma pneumoniae Virus | BLANK | Enterovirus D68 |
| RPP-7 | 7 | Bordetella parapertussis | Bordetella pertussis/Borde tella holmesii | Klebsiella pneumoniae | Chlamydophila pneumoniae |
| RPP-8 | 8 | Mycoplasma cartarum | Methicillin Resistance Gene (mecA) | Staphylococcus aureus | Vancomycin Resistance Genes (Van A/B) |
| RPP-9 | 9 | Haemophilus influenzae | Influenza B Virus | Mycoplasma pneumoniae | Streptococcus pyogenes/pertu ssis |
| RPP-10 | 10 | Streptococcus pyogenes | Legionella Species | Streptococcus pneumoniae | Streptococcus agalactiae |