Resource Summary Report

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Respiratory picornavirus genotyping conventional nested RT-PCR ("Wisdom VP42 assay")

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Proper Citation

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Protocol Information

URL: https://dx.doi.org/10.17504/protocols.io.9tyh6pw

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Summary: This is my preferred, previously published [Ref 1], rhinovirus (RV) and enterovirus (EV) genotyping assay when seeking to identify the genotype of a respiratory picornavirus detected in a clinical sample extract. It is employed after use of a screening real-time RT-PCR has identified a respiratory picornavirus.I have not confirmed that it can detect every single RV genotype but I do know that it detects many from each of the three RV species (Human rhinovirus A, Human rhinovirus B and Human rhinovirus C) as well as at least some Human enterovirus (EV) genotypes.The assay picks up EVs due to the shared genetic similarities in the 5'UTR target region. EVs can be discriminated using subgenomic sequencing (see VP42 typing assay protocol), or simply described as 'respiratory EVs' since there is no specific-specific vaccine or treatment available anyway. This is a robust primary subgenomic sequencing assay. It is more sensitive than any VP1 protocols because it targets more conserved primer target sites. It produces a more reliable typing result than does the 5'UTR region alone.

Affiliations: Public Health Virology, Forensic and Scientific Services, Public Health Virology, Forensic and Scientific Services

External URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2786677/

Version: 2

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