xGen™ Respiratory Virus Amplicon Panel

The xGen Respiratory Virus Amplicon Panel includes a premixed target-specific multiplex primer pool designed to amplify RSV A, RSV B, Influenza A H1N1, Influenza A H3N2, Influenza B, and SARS-CoV-2 genetic material.

To construct next generation sequencing (NGS) libraries for the Illumina® sequencing platform, this panel must be purchased with the xGen Amplicon Core Kit and indexing primers of choice. For more information, see the **xGen Respiratory Virus Amplicon Panel webpage**.

Features	Specification
Panel information	Primers designed to target RSV A, RSV B, Influenza A H1N1, Influenza A H3N2, Influenza B, SARS-CoV-2
Input material	1st or 2nd strand cDNA Minimum of 10–100 viral copies
Multiplexing capability	Up to 1536 UDIs
Recommended read depth	200,000 reads per library, PE150
Time required	~2.5 hours
Number of amplicons	1199

Protocol modifications

Please use the **xGen Amplicon Panels for viral genome sequencing Protocol** for the full description of the procedures with the following modifications:

Table 1. Multiplex PCR (PCR 1)*

Temperature (°C)	Time	Number of cycles
98	30 sec	1
98	10 sec	4
61	5 min	
65	1 min	
98	10 sec	20
64	1 min	
65	1 min	1
4	∞	

* Confirm lid heating is turned ON and is set to 105°C. Allow the block to reach 98°C before loading samples.

Table 2. Indexing PCR (PCR 2)*

Temperature (°C)	Time	Number of cycles
37	20 min	1
98	30 sec	1
98	10 sec	5
60	30 sec	
66	1 min	
4	∞	

* Confirm lid heating is turned ON and is set to 105°C. Allow the block to reach 37°C before loading samples.

If samples contain a low number of viral copies, see Appendix C: Low Viral Load Recommendations in the **xGen Amplicon Panels for viral genome sequencing Protocol** to adjust PCR cycles and increase library yield.

Important: Multiplex PCR reactions must be assembled on ice and then placed in a pre-heated thermal cycler. Failure to do so will reduce yields and performance.

For more information, go to **www.idtdna.com/ContactUs**