

xGen™ HIV Amplicon Panel

The xGen Amplicon HIV Panel includes a premixed target-specific multiplex PCR primer pool designed to cover 99.3% of the Human Immunodeficiency Virus (HIV) genome.

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

Features	Specifications
Panel information	Primers designed to target the HIV genome
Input material	HIV 1st or 2nd strand cDNA, or dsDNA plasmid minimum of 1,000 double-stranded copies
Multiplexing capability	Up to 1536 UDIs
Recommended read depth	500,000 reads per library, PE150 or PE250
Time required	~2.5 hours
Number of amplicons	107

Protocol modifications

Please use the [xGen Amplicon Panels for viral genome sequencing Protocol](#) for the full description of the procedures. The following thermal cycler conditions and SPRI ratios have been specially optimized for this panel:

Temperature (°C)	Time	Number of cycles
98	30 sec	1
98	10 sec	
65	5 min	4
65	1 min	
98	10 sec	24
64	1 min	
65	1 min	1
4	∞	

Temperature (°C)	Time	Number of cycles
37	20 min	1
98	30 sec	1
98	10 sec	
60	30 sec	9
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.

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

Proceed to post indexing PCR SPRI Cleanup: 0.65X (32.5 µL PEG-NaCl).

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

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