

# HIV-1 DNA TEST PRO



The HIV-1 DNA Test PRO is a qualitative and quantitative real-time PCR assay designed for the detection of total HIV-1 DNA in whole blood samples and PBMCs. It provides an overall quantification of all viral forms of HIV-1 DNA—stable integrated proviruses and extrachromosomal 1-LTR, 2-LTR, and linear forms—each contributing differently to viral replication and disease progression. By simultaneously amplifying HIV-1 DNA and the endogenous Telomerase Reverse Transcriptase (hTERT) gene, the assay enables internal control of DNA extraction efficiency, identification of inhibitory factors, and quantification without prior DNA normalization. Total HIV-1 DNA is broadly considered as a measure of the viral reservoir and an attractive marker to monitor its changes following specific treatment strategies improving patient management. Moreover, HIV-1 proviral DNA detection is a sensitive and specific diagnostic approach for infants born to HIV-infected mothers under two years of age, for whom serology may be unreliable due to maternal antibody transfer.

## Product highlights

### VALIDATED METHOD

The kit was tested and validated in the framework of the **Italian HIV network study** on the *External quality assessment of HIV-1 DNA quantification assays used in the clinical setting in Italy*

### READY TO USE REAGENTS

All kit components are ready to use

### RELIABLE RESULTS

The **Inhibitor-Resistant Amplification Mix** ensures reliable results, even in the presence of challenging sample matrix inhibitors

## Intended use

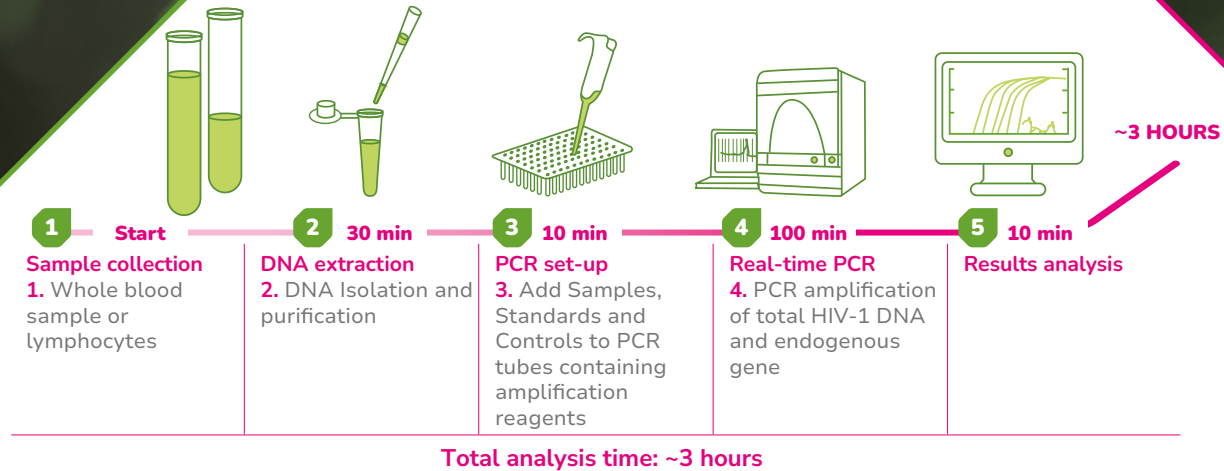


Quantifying the HIV-1 reservoir in patients under treatment



Diagnosis of HIV infection in infants born to HIV-positive mothers

## Workflow



## Product Features

### SUPERIOR PERFORMANCE

Accurate detection and quantification of HIV-1 DNA using an amplification mix with a technology that neutralizes a broad spectrum of PCR inhibitors that compromise assay performance with whole blood

### RELIABILITY

The amplification of the endogenous gene hTERT reveals the presence of inhibitory factors in the sample and allows to normalize the results

### COMPATIBILITY

Highly consistent results on various real-time cyclers in terms of sensitivity, reproducibility and efficiency

### EASE OF USE

Minimal hands-on time

### SPEED

Less than 3 hours from sample to result

### CONVENIENCE

PCR mix and standard curve ready to use. DNA quantification is not necessary to obtain HIV-1 DNA copies because of the endogenous gene amplification

## Technical specifications

<b>TEST METHOD</b>	Real-time PCR (qPCR)
<b>FORMAT</b>	96 tests (MBK0087) 32 tests (MBK0087-32T)
<b>STORAGE TEMPERATURE</b>	-20 °C
<b>TARGET GENE</b>	LTR (HIV gene) hTERT (endogenous gene)
<b>SAMPLE TYPE</b>	Human Whole blood / PBMC
<b>ASSAY TURNAROUND TIME</b>	< 3 hours
<b>INTERNAL CONTROL</b>	In each sample Detects the presence of inhibitors in the sample allowing to check the validity of negative results and to guarantee the accuracy of DNA quantification
<b>THERMAL CYCLER COMPATIBILITY</b>	Require qPCR cycler with filter sets for FAM™ and VIC/HEX/JOE dyes

## Analytical Characteristics

QUANTITATIVE ASSAY	QUALITATIVE ASSAY
<b>LIMIT OF QUANTIFICATION</b>	5 HIV-1 DNA copies/PCR well 34 HIV-1 DNA copies/10(6) cells
<b>LIMIT OF DETECTION</b>	4 HIV-1 DNA copies/PCR well 27 HIV-1 DNA copies/10(6) cells
<b>LINEAR RANGE</b>	5 – 50 000 HIV-1 DNA copies/PCR well

## ORDERING INFORMATION

CODE	SIZE
MBK0087	96 TESTS
MBK0087-32T	32 TESTS

For more information or to place an order, contact us at [info@diatheva.com](mailto:info@diatheva.com)