



Real Time PCR Diagnostic Kits

Lionprobes® Technology

“A new fluorescent probe system for Real-Time detection, quantification, and nucleic acid sequence analysis”
(Patent PCT ES2005/070093)

LIONPROBES® represents an innovative fluorescent system for detecting, quantifying, and analysis of specific nucleic acid sequences. The amplification-detection system depends on a non- conventional DNA polymerase enzyme, a custom-probe design, and the technology for high resolution melting.

Bioteools has developed an important number of products based on Lionprobes® technology, including BioPAP QTS Kit and BioTUB QT Kit.

BioPAP QTS Kit

n In vitro diagnostic test for the detection of oncogenic genotypes of anogenital *Human Papillomavirus*

n **Quantitative** determination, using a LIONPROBES® Real-Time polymerase chain reaction amplification

n The amplification specifically detects the oncogenic genotypes **16, 18, 31, 33, 35 and 58**, all of them being considered of high risk for neoplastic development

The BioPAP-QTS kit can be used with the following samples:

- s Cervical brushes and swabs
- s Cervical biopsies
- s Purification of DNA from clinical samples

Product	Cat N°	Format
BioPAP QTS kit (Applied Biosystems)	90.413A	96 rxns
BioPAP QTS kit (Corbett Rotor Gene™)	90.413C	96 rxns

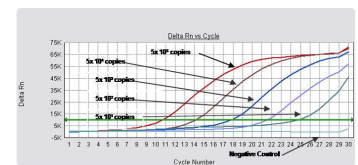


Figure 1. Fluorescence Curves for Standard Concentrations of HPV DNA
All positive controls analysed have a pronounced increase in fluorescence, indicating the presence of viral genome.
Equipment: ABI 7500®, FAM Channel: HPV detection

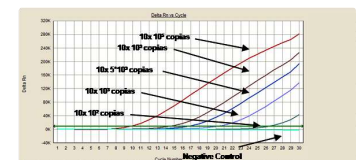


Figure 2. Fluorescence Curves for Standard Concentrations of β -globin
All positive controls analysed have a pronounced increase in fluorescence, indicating the presence of gen-globin.
Equipment: ABI 7500®, FAM Channel: BGL detection

BioTUB QT Kit

n In vitro diagnosis test for the quantitative determination of *Mycobacterium tuberculosis* in clinical samples

n **Quantitative** determination based upon Real Time DNA amplification techniques, using specific hydrolysis primer-probes, LIONPROBES® type

The BIOTUB-QT kit is to be used with the following samples:

- s Lung and skin biopsies
- s Sputum
- s Bacterial cultures

Product	Cat N°	Format
BioTUB QT kit (Applied Biosystems)	90.573A	96 rxns
BioTUB QT kit (Corbett Rotor Gene™)	90.573C	96 rxns

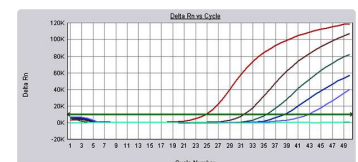


Figure 1. Fluorescence curves obtained in the FAM/Channel using serial dilutions of the positive control provided by the kit (STD MTB 1- 5x 10⁵ copies, STD MTB 2- 5x 10⁴ copies, STD MTB 3- 5x 10³ copies, STD MTB 4- 5x 10² copies and STD MTB 5- 5x 10¹ copies).
Equipment: ABI 7500®

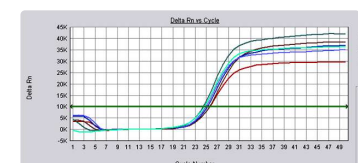


Figure 2. Fluorescent signal detected in the VIC Channel for the internal control amplification of the analysed samples shown in Figure 1.
Equipment: ABI 7500®

End Point PCR Diagnostic Kits

BioPAP Kit

n Qualitative determination of *Human Papillomavirus (HPV)* by DNA amplification

- n The kit **differentiates** between two HPV groups:
- oncogenic HPV genotypes (16, 18, 31, 33, 35, 52, 58 and 67)
 - generic HPV genotypes (6, 11, 13, 16, 18, 30, 31, 32, 33, 34, 35, 39, 40, 42, 43, 44, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 64, 66, 67, 68 and 69)

n To be used with cervix samples

n Includes positive control

Product	Cat N°	Format
BioPAP kit	90.013	96 rxns

BioHBV Kit

n Qualitative detection of *Hepatitis B Virus (HBV)* in clinical samples by DNA amplification

n Based on a semi-nested amplification in one single reaction, achieving high sensitivity and specificity

- n To be used with the following samples:
- Blood samples stored in EDTA
 - Serum/plasma samples stored in heparine
 - PBMC samples stored at or bellow -20°C
 - Liver biopsies

n Includes positive control

Product	Cat N°	Format
BioHBV kit	90.053	96 rxns

BioTUB Kit

n Qualitative detection of *Mycobacterium tuberculosis* in clinical samples. The detection is achieved in two steps:

- first step consists of an amplification detecting sequences specific for *Mycobacterium tuberculosis*
- second step is a nested amplification reaction, which can be performed at user's will, in order to achieve the maximum sensitivity of the test

BioTYPAP Kit

n Qualitative detection of *Human Papillomavirus (HPV)* by DNA amplification, followed by restriction digest (RFLP) in order to detect the HPV genotypes involved in the infection

n **Differentiates** and **identifies** the 32 genotypes detected by BioPAP Kit

n To be used with cervix samples

n Includes positive control

Product	Cat N°	Format
BioTYPAP kit	90.017	96 rxns

BioHCV Kit

n Qualitative detection of *Hepatitis C Virus (HCV)* in clinical samples by reverse transcription followed by DNA amplification in clinical samples. The kit transcribes viral RNA into cDNA, which is then amplified using a specific set of primers.

- n To be used with the following samples:
- Blood samples stored in EDTA
 - Serum/plasma samples stored in heparine
 - PBMC samples stored at or bellow -20°C
 - Liver biopsies

n Includes positive control

Product	Cat N°	Format
BioHCV kit	90.063	96 rxns

- n To be used with the following samples:
- Blood samples stored in EDTA
 - Lung tissues
 - Sputum

n Includes positive control

Product	Cat N°	Format
BioTUB kit	90.073	96 rxns