HBV Viral Load

Cat. No. C02-01-1115R

Real-time PCR test kit for quantitative detection of Hepatitis B Virus genetic sequences

Includes main components for 100 reactions for Roche LightCycler® Real-Time PCR System

Rev. 4
March 2012
HAI KANG LIFE CORPORATION LIMITED

PLEASE READ THROUGH THE ENTIRE PROTOCOL BEFORE STARTING.

1. KIT COMPONENTS

Amplification Reagents

- 5 x 200 µl HBV Mastermix (store at –20°C)
- 1 x 50 µl Positive Control **1 x 10^6 copies/µl** (store at –20°C)
- 1 x 50 µl Positive Control **1 x 10^5 copies/µl** (store at –20°C)
- 1 x 50 µl Positive Control **1 x 10^4 copies/µl** (store at –20°C)
- 1 x 50 µl Positive Control **1 x 10^3 copies/µl** (store at –20°C)
- 1 x 50 µl Positive Control **1 x 10^2 copies/µl** (store at –20°C)
- 1 x 50 µl Positive Control **1 x 10^1 copies/µl** (store at –20°C)

Note: 1 IU ≈ 5.3 copies.

Storage Conditions

Store Mastermix and Positive Control at -20°C. Thaw frozen reagents just before use. Mix reagents thoroughly (do not vortex Mastermix containing enzyme).

Note:

Please aliquot the Mastermix into appropriate volume according to your test frequency, in order to minimize repeated freeze and thaw cycles. Frequent thawing and freezing may inactivate some kit components.

2. PROCEDURES

Set-up

- In addition to the DNA obtained from the test samples, each experiment requires a positive and negative (water) control.
- Set up real-time PCR components according to the table below:

Components	Volume per reaction
Mastermix	10 µl
Sample DNA	15 µl
Total Volume	25 µl

Note:

- Use real time PCR tubes and consumable recommended for your real-time PCR equipment.
- Keep DNA samples on ice throughout experiment.
- 15 µl of provided Positive Control can be used to monitor the success of amplification.
- It is advisable to run samples in duplicate to ensure reliability of results.
- Spiking Control: 1 µl of Positive Control can be spiked into test sample to check whether the test sample contains PCR inhibitory substances.

Cycling conditions:

			Data Collection Points (**FAM** Filter / 530nm)
1 Cycle	95°C	5 Minutes	-
45 Cycles	95°C	10 Seconds	-
	60°C	1 Minute	⎙

(Take readings at point ⎙)

Note:
Please set the ramping rate as **2°C/second**.

3. DATA ANALYSIS AND INTERPRETATION

Detailed explanations of the basic and advanced operating procedures should be provided with your real-time PCR equipment. This kit is optimized using the Roche LightCycler® 2.0 Real-Time PCR System.

Acceptance Criteria of Standard Curve

1. $R^2 \geq 0.97$
2. Ct value of the positive control of the lowest concentration (i.e. 1 x 10^1 copies/µl) ≤ 40

Spiking Control

Negative real-time PCR result may be due to a few scenarios: 1. absence of detected sequence in the sample; 2. presence of detected sequence below limit of detection; 3. presence of PCR inhibitory substances. The purpose of spiking control is to verify whether the test sample contains substances, which may affect PCR reactions. If Ct equals 45 (or similar to Ct given by negative control) when the test sample is spiked with the positive control, the test sample is highly likely to contain PCR inhibitory substances, and the result should NOT be taken as negative. Repeated extraction and real-time PCR of the sample will be required.

If you require more detailed analysis information, please contact Hai Kang Life Corporation Limited for technical assistance.

4. TECHNICAL ASSISTANCE

Our technical staff will provide technical assistance you may need in using this kit. Simply call +**(852) 2111 2123** during office hours:

Monday – Friday: 9:00am to 6:00pm

A recorded message (in English, Cantonese or Putonghua) may be left outside office hours.

Alternatively, you may contact our technical staff by fax or email.

Fax: +(852) 2111 9762
Email: technical@haikanglife.com

5. WARRANTIES AND LIABILITIES

Hai Kang Life Corporation Limited warrants the products manufactured by it are free of defects in materials and workmanship when used in accordance with the applicable instructions for a period equal or shorter of one year from the date of shipment of the product(s) or the expiration date marked on the product packaging under the storage conditions recommended in the instructions and/or on the package. Application protocols published by Hai Kang Life Corporation Limited are intended to be only guidelines for the buyers of the products. Buyers are expected to validate the kit to their individual application. Hai Kang Life Corporation Limited makes no other warranty, expressed or implied. There is no warranty of merchantability or fitness for a particular purpose.

The sole obligation of Hai Kang Life Corporation Limited with regard to the foregoing warranties shall be, at its option, to either replace or refund the purchase price of the product(s) or part there of that proves defective in materials or workmanship within the warranty period, provided the customer notifies Hai Kang Life Corporation Limited promptly of any such defect. Hai Kang Life Corporation Limited shall not be liable for any defect, indirect or consequential damages resulting from economic loss or property damages sustained by the buyer or any customer from the user of the product(s).