

CAR/TCR Gene Copy Number Detection Kit (Multiplex qPCR)

Overview

Cat.No. HG-CA001

This kit is designed for the quantitative detection of CAR gene copy number in the genome of CAR-T/TCR-T cells prepared by using HIV-1 lentiviral vector technology.

This kit adopts the fluorescent probe method and multiplex PCR method to detect the DNA sequence related to integration or expression function on the transfer plasmid and the reference gene (RFG) in human cells, and the CAR gene copy number/cell in the sample can be calculated. The kit is a rapid, specific and reliable device.

Specification

Assay range: $3.00 \times 10^1 \sim 3.00 \times 10^6$ copies/ μL

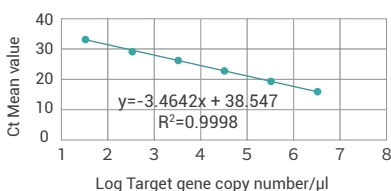
Limit of quantitation: 30 copies/ μL

Limit of detection: 15 copies/ μL

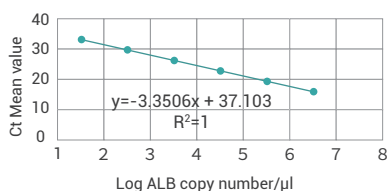
Precision: CV% \leq 15%

Standard curve

Target gene copy number Standard curve



RFG gene copy number Standard curve



Datasheet

Copies/ μL	Log Copies	Target gene copy number Standard curve					RFG gene copy number Standard curve				
		Ct Value(1)	Ct Value(2)	Ct Value(3)	Ct Mean Value	CV	Ct Value(1)	Ct Value(2)	Ct Value(3)	Ct Mean Value	Recovery rate
$3.00\text{E}+06$	6.48	16.14	16.29	16.21	16.21	93.33%	15.39	15.48	15.42	15.43	97.93%
$3.00\text{E}+05$	5.48	19.27	19.61	19.43	19.43	109.50%	18.67	18.79	18.71	18.72	101.97%
$3.00\text{E}+04$	4.48	23.00	23.04	23.01	23.01	101.34%	22.09	22.12	22.03	22.08	101.49%
$3.00\text{E}+03$	3.48	26.42	26.53	26.54	26.54	100.21%	25.43	25.46	25.45	25.45	100.45%
$3.00\text{E}+02$	2.48	30.10	30.00	30.06	30.06	94.34%	28.85	28.80	28.88	28.84	97.50%
$3.00\text{E}+01$	1.48	33.41	33.50	33.27	33.27	102.29%	32.25	32.18	32.00	32.14	100.80%
Amplification efficiency						94.4%	Amplification efficiency				98.82%