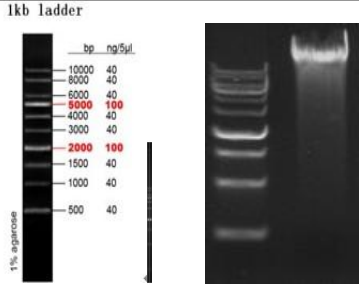


CERTIFICATE OF ANALYSIS

Product information

Name	Panel-Ref® gDNA Cocktail V Reference Standard
Catalog No.	CBP90022
Lot No.	CBFA23060701
Format	Genomic DNA
Buffer	Tris-EDTA
Storage Conditions	4°C
Date of Manufacture	2023/06/07
Expiry	36 months from the date of manufacture

Quality Control

Test Items	Standard	Results	Passed
Quantity	1.00 µg/vial*1 vial	1.00 µg/vial*1 vial	√
Concentration	40.00 ng/uL±10%	41.20 ng/uL by Qubit 3.0 detection	√
OD ₂₆₀ /OD ₂₈₀	1.7~2.1	1.79 by Nanodrop detection	√
DNA electrophoresis	No Degradation	 <p>1kb ladder</p> <p>bp ng/5µl</p> <p>10000 40 8000 40 6000 40 4000 100 3000 40 2000 100 1500 40 1000 40 500 40</p> <p>1% agarose</p> <p>M 1</p> <p>M: Marker 1: Panel-Ref® gDNA Cocktail V Reference Standard</p>	√

Gene	AA Change	CDS Change	Expected %AF	Measured %AF
EGFR	p.E746_A750delELREA	c.2235_2249del15 GGAATTAAGAGAAGC>-	3%	3.05%
EGFR	p.L858R	c.2573T>G	3%	2.62%
EGFR	p.T790M	c.2369C>T	3%	3.42%
EGFR	p.G719S	c.2155G>A	3%	3.24%
BRAF	p.V600E	c.1799T>A	内源突变	N/A
KRAS	p.G12D	c.35G>A	3%	3.08%
KRAS	p.Q61H	c.183A>C	内源突变	N/A
PIK3CA	p.E545K	c.1633G>A	3%	3.30%
PIK3CA	p.H1047R	c.3140A>G	内源突变	N/A
EML4-ALK	E13-A20	DNA Translocation	3%	2.84%

CCDC6-RET	E1-E12	DNA Translocation	3%	2.78%
ERBB2	CNV	Amplification	CN=4	CN=4.93

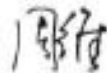
DdPCR Acceptance criteria

Expected value	Acceptance criteria	Expected value	Acceptance criteria
<1%	Expected value \pm 50%	<5 copies	Expected value \pm 30%
\geq 1% and <5%	Expected value \pm 30%	\geq 5 and <10 copies	Expected value \pm 20%
\geq 5% and <10%	Expected value \pm 20%	\geq 10 copies	Expected value \pm 10%
\geq 10%	Expected value \pm 10%		

Caution:

For research use only.

If you have any questions about the Certificate of Analysis, please contact us.

Certified by:  Date:****

 Date:****