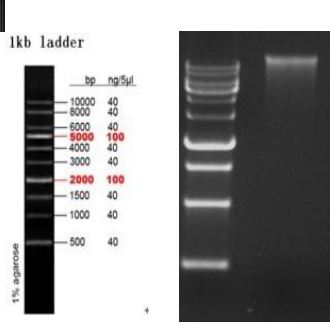


CERTIFICATE OF ANALYSIS

Product information

Name	Panel-Ref® gDNA Cocktail III Reference Standard
Catalog No.	CBP90022
Lot No.	CBFA22121202
Format	Genomic DNA
Buffer	Tris-EDTA
Storage Conditions	4°C
Date of Manufacture	2022/12/12
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%	43.10 ng/uL by Qubit 3.0 detection	√
OD ₂₆₀ /OD ₂₈₀	1.7~2.1	1.84 by Nanodrop detection	√
DNA electrophoresis	No Degradation	 <p> 1kb ladder bp ng/5ul 10000 40 8000 40 6000 40 4000 100 3000 40 2000 100 1500 40 1000 40 500 40 1% agarose M 1 M: Marker 1: Panel-Ref® gDNA Cocktail III Reference Standard </p>	√

Allele Frequency(AF) and Genotype: DdPCR & NGS

Gene	AA Change	Expected %AF	DdPCR %AF (n=1)	DdPCR %AF (n=2)	DdPCR %AF (n=3)
EGFR	p.E746_A750del ELREA	5.00%	5.50%	5.13%	4.93%
EGFR	p.L858R	5.00%	5.48%	4.78%	5.01%
EGFR	p.T790M	5.00%	4.61%	5.23%	5.37%
EGFR	p.G719S	5.00%	5.50%	4.47%	5.32%
BRAF	p.V600E	内源突变	内源突变	内源突变	内源突变
KRAS	p.G12D	5.00%	5.08%	4.75%	4.69%
KRAS	p.Q61H	内源突变	内源突变	内源突变	内源突变

PIK3CA	p.E545K	5.00%	5.66%	4.95%	5.30%
PIK3CA	p.H1047R	内源突变	内源突变	内源突变	内源突变
EML4-ALK	E13-A20	5.00%	5.20%	4.45%	5.15%
CCDC6-RET	E1-E12	5.00%	4.91%	4.84%	4.80%
ERBB2	CNV	CN=6	CN=6.51	CN=6.69	CN=5.94
MYC	CNV	CN=10	CN=11.06	CN=10.28	CN=10.79

CBP90010 MSI-H				
Marker	Size 1	Size 2	Size 3	Size 4
NR21	120.56	130.59		
Bat26	164.91	175.21		
PentaC	219.19	229.51	234.76	239.91
Bat25	109.31	117.71		
NR27	141.74	155.11		
PentaD	177.30	181.78	186.59	196.23
Amel	106.82	112.37		
NR24	125.70	128.42	132.01	
Mono27	161.52	170.83		

MSI detected by PCR method

DdPCR Acceptance criteria

Expected value	Acceptance criteria	Expected value	Acceptance criteria
0%	≤0.1%	<5 copies	Expected value ± 30%
<1%	Expected value ± 50%	≥5 and <10 copies	Expected value ± 20%
≥1% and <5%	Expected value ± 30%	≥10 copies	Expected value ± 15%
≥5% and <10%	Expected value ± 20%		
≥10%	Expected value ± 10%		

Caution:

For research use only.

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

Certified by:  Date:****

 Date:****