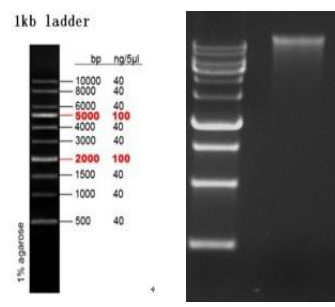


## CERTIFICATE OF ANALYSIS

### Product information

Name	PaneRefer gDNA Cocktail VII Reference Standard
Catalog No.	CBP90016
Lot No.	CBFA24031401
Format	Genomic DNA
Buffer	Tris-EDTA
Storage Conditions	-20°C
Date of Manufacture	2024/03/14
Expiry	36 months from the date of manufacture

### Quality Control

Test Items	Standard	Results	Passed
Quantity	10.00 µg/vial*10 vials	10.00 µg/vial*10 vials	√
Concentration	80.00 ng/uL±10%	88.00 ng/uL by Qubit 3.0 detection	√
OD <sub>260</sub> /OD <sub>280</sub>	1.7~2.1	1.84 by Nanodrop detection	√
DNA electrophoresis	No Degradation	 <p>1kb ladder</p> <p>bp ng/5ul</p> <p>10000 40 8000 40 6000 40 4000 40 3000 40 2000 100 1500 40 1000 40 500 40</p> <p>1% agarose</p> <p>M 1</p> <p>M: Marker 1: PaneRefer gDNA Cocktail VII Reference Standard</p>	√

Gene	AA Change	CDS Change	Expected %AF	Measured %AF
EGFR	p.E746_A750del	c.2236_2250del15	5%	5.27%
EGFR	p.S768I	c.2303G>T	5%	5.36%
EGFR	p.L861Q	c.2582T>A	5%	4.62%
MET	CNV	Amplification	CN=6	5.46
ERBB2	p.A775_G776insYVMA	c.2324_2325ins12	5%	5.66%
KRAS	p.G12V	c.35G>T	5%	4.66%
PIK3CA	p.E542K	c.1624G>A	5%	5.70%
KRAS	p.Q61H	c.183A>C	5%	4.16%
BRAF	p.V600E	c.1799T>A	内源突变	40.81%

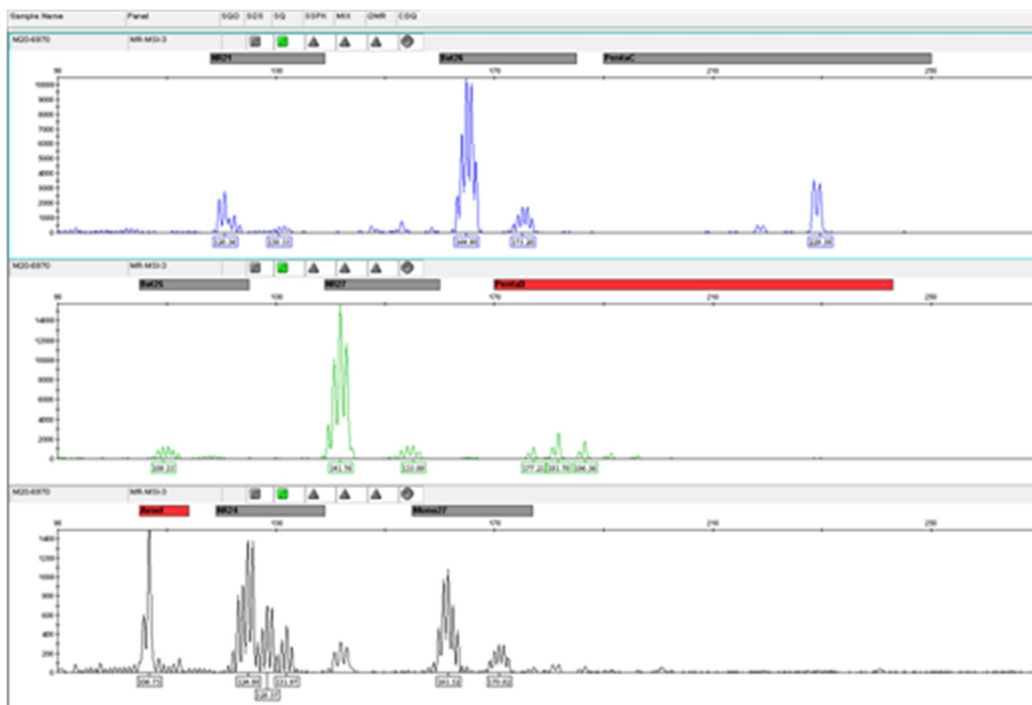
PIK3CA	p.H1047R	c.3140A>G	内源突变	24.74%
EGFR	p.G719C	c.2155G>T	5%	5.04%
CD74-ROS1	E6-E34	DNA Translocation	5%	4.78%
NRAS	p.Q61K	c.181C>A	5%	5.10%
IDH1	p.R132C	c.394C>T	5%	5.13%

#### 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%		

#### MSI Status: MSI-H

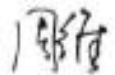
Marker	Size 1	Size 2	Size 3
NR21	120.56	130.55	
Bat26	164.90	175.20	
PentaC	229.59		
Bat25	109.35		
NR27	141.76	155.09	
PentaD	177.21	181.70	186.56
Amel	106.75		
NR24	124.88	128.37	131.97
Mono27	161.52	170.82	



**Caution:**

For research use only.

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

Certified by:  Date:\*\*\*\*

 Date:\*\*\*\*