

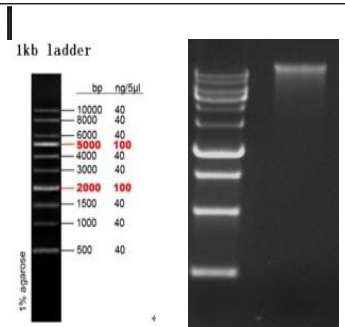
# CERTIFICATE OF ANALYSIS

## Panel-Ref® BRCA1/2 Somatic Mutation Cocktail I

### Product information

Name	Panel-Ref® BRCA1/2 Somatic Mutation Cocktail I
Catalog No.	CBP90019
Lot No.	GBD56602447
Format	Genomic DNA
Buffer	Tris-EDTA
Storage Conditions	-20°C
Date of Manufacture	Jul.-15-2020
Expiry	36 months from the date of manufacture

### Quality Control

Test Items	Standard	Results	Passed
Quantity	1ug/vial*1vial	1ug/vial*1vial	√
Concentration	Qubit 3.0	40 ng/uL±10%	√
OD <sub>260</sub> /OD <sub>280</sub>	1.7~2.0	1.84	√
DNA electrophoresis	No Degradation	 <p>           1kb ladder            bp ng/5ul            10000 40            8000 40            6000 40            5000 100            4000 40            3000 40            2000 100            1500 40            1000 40            500 40            1% agarose         </p> <p style="text-align: center;">M                      1</p> <p>           M: Marker            1: Panel-Ref® BRCA1/2 Somatic Mutation            Cocktail I         </p>	√

Gene	Clinical significance	cDNA Change	AA Change	%AF	WES-500x	dPCR
BRCA1	Benign	c.4837A>G	p.S1634G	5.00%	5.64%	4.6%
BRCA1	Benign	c.3548A>G	p.K1183R	5.00%	2.69%	4.7%
BRCA1	Benign	c.2612C>T	p.P871Q	45.00%	47.36%	46.8%
BRCA1	Benign	c.2458A>G	K820E	5.00%	5.05%	4.9%
BRCA1	Benign	c.2082C>T	p.S694S	5.00%	6.2%	4.5%

BRCA1	Uncertain significance	c.1303G>T	p.D435Y	5.00%	4.41%	4.2%%
BRCA2	Benign	c.865A>C	p.N289D	5.00%	2.99%	5.2%
BRCA2	Benign	c.2229T>C	p.H743H	5.00%	5.1%	4.9%
BRCA2	Benign	c.2971A>G	p.N991D	5.00%	4.95%	4.7%
BRCA2	Benign	c.3516G>A	p.S1172S	5.00%	4.8%	5.1%
BRCA2	Benign	c.3807T>C	p.V1269V	5.00%	6.45%	5.9%
BRCA2	Benign	c.4563A>G	p.L1521L	100.00%	100%	100%
BRCA2	Pathogenic	c.5345delA	p.N1784fs	10.00%	8.92%	10.4%
BRCA2	Benign	c.6513G>C	p.V2171V	100.00%	100%	100%
BRCA2	Benign	c.7397T>C	p.V2466A	100.00%	100%	100%
BRCA1	Pathogenic	c.4327C>T	p.R1443*	1.00%	0.6%	1%
BRCA2	Benign	c.3396A>G	p.K1132K	45.00%	47.31%	47.2%
BRCA2	Benign	c.4258G>T	p.D1420Y	5.00%	6.33%	4.8%
BRCA2	Pathogenic	c.5067delA	p.K1691fs	2.30%	2.28%	2.3%
BRCA2	Benign	c.7242A>T	p.S2414S	37%	32.89%	38.6%
BRCA2	Benign	c.1365A>T	p.S455S	5%	3.87%	5.6%


#### 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:\*\*\*\*