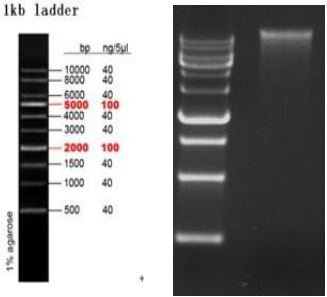


## CERTIFICATE OF ANALYSIS

### Product information

Name	Panel-Ref Pharmacogenetics Cocktail I
Catalog No.	CBPA0021
Lot No.	CBFA23062102
Format	Genomic DNA
Buffer	Tris-EDTA
Storage Conditions	4°C
Date of Manufacture	2023/06/21
Expiry	36 months from the date of manufacture

### Quality Control

Test Items	Standard	Results	Passed
Quantity	0.50 µg/vial*1 vial	0.50 µg/vial*1 vial	√
Concentration	40.00 ng/uL±10%	43.90 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/5µl</p> <p>10000 40</p> <p>8000 40</p> <p>6000 40</p> <p>4000 40</p> <p>3000 40</p> <p>2000 100</p> <p>1500 40</p> <p>1000 40</p> <p>500 40</p> <p>1% agarose</p> <p>M I</p> <p>M: Marker</p> <p>I: Panel-Ref Pharmacogenetics Cocktail I</p>	√

Name	AA Change	DNA Change	Chr position (GRCh38)	Expected AF
CYP2D6*2_p.S486T	p.S486T	NM_000106.6_c.1457G>C	NC_000022.11_g.42126611C>G	100.00%
CYP2D6*2_p.R296C	p.R296C	NM_000106.6_c.886C>T	NC_000022.11_g.42127941G>A	50.00%
CYP2D6*10	p.P34S	NM_000106.6_c.100C>T	NC_000022.11_g.42130692G>A	100.00%
CYP2C19*2	p.P227=	NM_000769.1_c.681G>A	NC_000010.11_g.94781859G>A	50.00%
CYP2C19*3	p.W212*	NM_000769.1_c.636G>A	NC_000010.11_g.94780653G>A	50.00%
VKORC1 -1639G>A	N/A	NM_024006.4_-1639G>A	NC_000016.10_g.31096368C>T	100.00%


**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:\*\*\*\*