

## BATCH CERTIFICATE

For Research Use Only

### PRODUCT INFORMATION AND QUALITY CONTROL

NAME OF PRODUCT	5-Gene-Multiplex 5% AF cfDNA AKT1/BRAF/ERBB2/KRAS/PIK3CA
DESCRIPTION	5-Gene-Multiplex 5% AF cfDNA AKT1/BRAF/ERBB2/KRAS/PIK3CA is highly characterized human DNA from cell line.
CATALOG NUMBER	SID-000094
<b>BATCH NUMBER</b>	<b>00497</b>
MANUFACTURING CONDITIONS	<ul style="list-style-type: none"> <li>· Manufactured und sealed in class 2 safety cabinet</li> <li>· Manufactured according to DIN EN ISO 13485:2016</li> </ul>
PACKAGE SIZE AND TYPE	<ul style="list-style-type: none"> <li>· 2D barcoded tube with screw cap</li> <li>· Material: Polypropylen (PP)</li> </ul>
DATE OF MANUFACTURE	01.06.2023
EXPIRY DATE	31.05.2025
TARGET CONCENTRATION	20 ng/μl (dsDNA)
TARGET QUANTITY	400 ng (dsDNA)
NOMINAL VOLUME	20 μl
MUTATION * GRCh38 COSMIC v97	AKT1 p.E17K (COSV62571334*, substitution, c.49G>A, Exon 2) BRAF p.V600E (COSV56056643*, substitution, c.1799T>A, Exon 15) ERBB2 p.E770_A771insAYVM (new: p.Y772_A775dup) (COSV54062409*, insertion, c.2313_2324dup, Exon 19) KRAS p.G12D (COSV55497369*, substitution, c.35G>A, Exon 1) KRAS p.Q61K (COSV55502066*, substitution, c.181C>A, Exon 2) KRAS p.A146T (COSV55501778*, substitution, c.436G>A, Exon 3) PIK3CA p.H1047R (COSV55873195*, substitution, c.3140A>G, Exon 20) PIK3CA p.E545K (COSV55873239* substitution, c.1633G>A, Exon 9)
ALLELE FREQUENCY	5.0%
QUALITY	DNA quantity metrologically traceable to internationally certified reference material (ERM_AD442K). The copy number values are metrologically traceable to the natural units count 1 and ratio 1 and International System of Units (SI) derived units of volume.
STORAGE CONDITIONS	+ 2-8°C
MANUFACTURING SITE	SensID GmbH Schillingallee 68, 18057 Rostock, Germany

TEST METHOD AND ACCEPTANCE CRITERIA	Quality control	Test method		Acceptance criteria
	Fragmentation	Fragment length analysis: Agilent D5000 ScreenTape System (Agilent Technologies)		Peak size: 167 bp ± 15% (142 bp – 192 bp)
	Quantification	Total DNA measurement (ssDNA): Spectrophotometry**		Total DNA: not applicable
		dsDNA measurement: Qubit dsDNA BR Assay Kit (Invitrogen)		dsDNA: 20.0 ng/μl 17.5 – 22.5 ng/μl
	**Protocol NK603 – Community Reference Laboratory for GM Food and Feed			
Allele frequency	Allele frequency analysis: ddPCR (BioRad QX200™)		AF 5.0% ± 30% (3.5 – 6.5%)	
RESULTS OF ANALYSIS	Quality control	Result		PASS / FAIL
	Fragmentation	180 bp		PASS
	Quantification	38.5 ng/μl (total DNA)		PASS
		20.8 ng/μl (dsDNA)		
	Allele frequency	Mutation	AF in %	PASS / FAIL
		AKT1 E17K	4.8	PASS
		BRAF V600E	4.7	PASS
		ERBB2 E770_A771insAYVM (new: Y772_A775dup)	4.9	PASS
		KRAS G12D	4.9	PASS
		KRAS Q61K	5.4	PASS
KRAS A146T		4.3	PASS	
PIK3CA H1047R		4.4	PASS	
PIK3CA E545K	4.3	PASS		

COMMENTS / REMARKS	Additional information: Measurement of copy number		
MEASUREMENT OF COPY NUMBER	Mutation	CN wt/ng	CN mut/ng
	AKT1 E17K	120	6
	BRAF V600E	102	5
	ERBB2 E770_A771insAYVM (new: Y772_A775dup)	156	8
	KRAS G12D	135	7
	KRAS Q61K	159	9
	KRAS A146T	178	8
	PIK3CA H1047R	195	9
	PIK3CA E545K	133	6
	wt: wildtype; mut: mutation		
<p><i>The table above indicates the values of the QC assays performed by SensID GmbH with a DNA input of 1 ng. The value for the respective mutation results from the mean value of QC samples according to ISO 2859-1:2014-08 (CN values are rounded). CN concentration values per nanogram (ng) are based on droplet digital (ddPCR) assay counts dilution factors, and droplet volume measurements. The detection of the amount of CNs may vary depending on the assay used. Therefore, due to assay properties, there may be deviations in the observed number of copies and allele frequencies compared to the values given here.</i></p>			

Name and position/title of person authorising the batch release:

Björn Nowack, Managing Director

Date of batch release: 09.06.2023

Signature batch release: Björn Nowack

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