

THE SCIENCE OF RAPID MUTATION SCREENING



Highly sensitive profiling of more than 230 mutations and 19 oncogenes




MassARRAY® System



IDENTIFY. SCREEN. CONFIRM.

Screen for important genetic markers in cancer pathways using rapid, parallel analysis of more than 230 somatic mutations across 19 common oncogenes.

Agena Bioscience's OncoCarta™ Panel v1.0 is a set of pre-validated assays covering 90-95% of known druggable markers for cost-effective, efficient mutation screening for your clinical research trials.

-  Use tumor samples from fresh, frozen, or formalin-fixed paraffin-embedded tissues (FFPE) and/or cell lines.
-  Analyze more than 230 mutations with as little as 240 ng DNA per sample.
-  Detect and quantify mutations with frequencies as low as 5%.

Assays by Agena also offers panels covering additional oncogenes and somatic mutations. See www.agenabio.com/oncology for more information.

GENES INCLUDED IN THE ONCOCARTA PANEL v1.0

ABL1	FGFR1	MET
AKT1	FGFR3	NRAS
AKT2	FLT3	PDGFA
BRAF	HRAS	PIK3CA
CDK4	JAK2	RET
EGFR	KIT	
ERBB2	KRAS	

See back for complete list of mutations.

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For Research Use Only. Not for use in diagnostic procedures.

THE MASSARRAY WORKFLOW

Each sample is subjected to PCR amplification and primer extension with the OncoCarta Panel v1.0 reagents. The extension products are dispensed onto a SpectroCHIP® Array and detected via MassARRAY® MALDI-TOF mass spectrometry. After the sample run, an automated software report provides the calls and mutation frequency for each sample as well as a confidence score.





THROUGHPUT

The OncoCarta Panel v1.0 contains multiplexed assays in 24 wells. The panel can be run in 24-well format (1 sample per plate), 96-well format (4 samples per plate), or 384-well format (16 samples per plate). One to 128 samples can be processed per day, providing flexibility in sample throughput and batching requirements.

ORDERING INFORMATION

CAT NO	FORMAT	SAMPLES/KIT
10176	10 x 96	40
10225	2 x 384	32
28604	8 x 24	8

ONCOCARTA PANEL v1.0 COMPONENTS

AMPLIFY		PCR Enzyme PCR Accessory Set OncoCarta v1.0 PCR Primers
EXTEND		iPLEX® Pro Reagent Set OncoCarta v1.0 Extend Primers
DETECT		SpectroCHIP Array and Clean Resin
ANALYZE		Typer Software

ONCOCARTA PANEL v1.0 GENES AND MUTATIONS

GENE	MUTATION
ABL1	G250E, Q252H, Y253H, Y253F, E255K, E255V, D276G, F311L, T315I, F317L, M351T, E355G, F359V, H396R
AKT1	E17K, Q43X, V167A, E319G, L357P, P388T, V461L
AKT2	S302G, R371H
BRAF	G464R, G464V/E, G466R, F468C, G469A, G469E, G469R, G469S, G469V, D594V/G, F595L, G596R, L597Q, L597R, L597S, L597V, T599I, V600E, V600K, V600L, V600R, K601N, K601E
CDK4	R24C, R24H
EGFR	R108K, T263P, A289V, G598V, E709A/G/V, E709K/H, G719A, G719S/C, E746_A750del, E746_T751del, E746_T751>A, E746_T751>S, E746_T751>V, E746_S752>V, E746_S752>D, E746_S752>A, E746_S752>I, L747S, L747_E749del, L747_A750del, L747_A750>P, L747_T751del, L747_T751>P, L747_S752del, L747_P753>Q, L747_P753>S, A750P, T751A, T751P, T751I, S752F, S752_I759del, P753Q, M766_A767insAI, S768I, V769_D770insASV, V769_D770insCV, D770_N771>AGG/N771>GF, D770_N771insG, D770_N771insGF, D770_N771insGL, D770fs*61/D770_N771insAPW, N771T, P772_H773insV, H773N, H773_V774insNPH, H773_V774insPH, H773_V774insH, V774_C775insHV, T790M, L858R, L861Q
ERBB2	L755P, A775_G776insYVMA, G776S/LC, G776VC/VC, S779_P780insVGS, P780_Y781insGSP
FGFR1	S125L, P252T
FGFR3	G370C, Y373C, A391E, K650Q/E, K650T/M
FLT3	D835H/Y, I836del
HRAS	G12V/D, G13C/R/S, Q61H/H, Q61L/R/P, Q61K
JAK2	V617F
KIT	D52N, Y503_F504insAY, K550_K558del, P551_V555del, M552L, Y553_Q556del, W557R/R/G, K558_V560del, K558_E562del, V559del, V559D/A/G, V559I, V559_V560del, V560D/G, V560del, E561K, Y568D, Y570_L576del, L576P, D579del, F584S, P585P, K642E, D816H/Y, D816V, V825A, E839K
KRAS	G12A, G12C, G12D, G12F, G12R, G12S, G12V, G13V/D, A59T, Q61E/K, Q61H/H, Q61L/R/P
MET	R970C, T992I, Y1230C, Y1235D, M1250T
NRAS	G12C/R/S, G12V/A/D, G13C/R/S, G13V/A/D, A18T, Q61E/K, Q61H, Q61L/R/P
PDGFRA	V561D, S566_E571>K, T674I, F808L, D842_H845del, D842V, I843_D846del, I843_S847>T, D846Y, N870S, D1071N
PIK3CA	R38H, R88Q, N345K, C420R, P539R, E542K, E545K, Q546K, H701P, C901F, M1043I, H1047R/L, H1047Y
RET	E632_L633del, C634R, C634W, C634Y, A664D, M918T

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The MassARRAY System, OncoCarta Panel, iPLEX Pro Reagents, SpectroCHIP Array, and Typer Software are For Research Use Only. Not for use in diagnostic procedures.

Agena Bioscience's patented nucleic acid analysis by mass spectrometry methods and products are protected under United States patent rights including but not limited to 5,869,242; 6,024,925; 6,440,705; 6,558,623; 6,569,385; 6,730,517; 6,979,425; 6,994,969; 7,019,288; 7,025,933; 7,232,688; 7,285,422; 7,332,275; 7,390,672; 7,501,251; 7,888,127; 7,917,301; 8,003,317; 8,315,805; and 8,349,566 and patents pending including but not limited to US20050272070 and US20130017960, and foreign counterparts including but not limited to, EP0815261B1, EP1173622B1, EP1727911B1, EP1546385B1, EP1332000B1, EP1613723B1, EP1660680B1, and EP2107129B1.

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