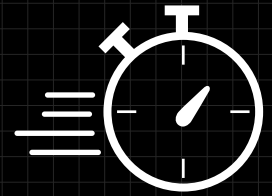


# THE SCIENCE OF RAPID MUTATION SCREENING






Fast turnaround time

Not just assays, verified results

Screen for important genetic markers in cancer pathways using rapid, parallel analysis of more than 150 somatic mutations across 18 oncogenes and tumor suppressors.

Agena Bioscience's OncoCarta™ Panel v2.0 is a set of pre-validated assays for cost-effective, efficient mutation screening.

-  Use tumor samples from fresh, frozen, or formalin-fixed, paraffin embedded tissues (FFPE) and/or cell lines.
-  Analyze more than 150 mutations with as little as 240 ng DNA per sample.
-  Detect and quantify mutation frequencies from ≤ 10%.

Assays by Agena also offers panels covering additional oncogenes and somatic mutations. See [www.agenabio.com/oncology](http://www.agenabio.com/oncology) for more information.

### GENES INCLUDED IN THE ONCOCARTA PANEL v2.0

AKT1	FGFR3	NRAS
BRAF	GNAQ	PDGFRa
CTNNB1	KIT	PIK3CA
FBX4	KRAS	PTN11
FBXW7	MAP2K1	SOS1
FGFR2	MAP2K2	TP53

See back for complete list of mutations.

vA



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 v2.0 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 v2.0 contains multi-plexed assays in 12 wells. The panel can be run in 96-well format (8 samples per plate) or 384-well format (32 samples per plate). Eight to 256 samples can be processed per day, providing flexibility in sample throughput and batching requirements.





### ORDERING INFORMATION

Choose the best approach for you:

- Order the OncoCarta Panel v2.0 components and run on your own MassARRAY System.
- Send your samples to our Assays by Agena Custom Services Laboratory and have our experienced scientists run the panel for you.

Please contact Agena Bioscience for more information.

### COMPONENTS FOR RUNNING THE ONCOCARTA PANEL v2.0

<b>AMPLIFY</b>		PCR Enzyme PCR Accessory Set OncoCarta v2.0 PCR Primers
<b>EXTEND</b>		iPLEX® Pro Reagent Set OncoCarta v2.0 Extend Primers
<b>DETECT</b>		SpectroCHIP Array and Resin Kit
<b>ANALYZE</b>		Typer Software

### ONCOCARTA PANEL v2.0 GENES AND MUTATIONS

GENE	MUTATION
<b>AKT1</b>	E17K
<b>BRAF</b>	R443T, R444Q, R444W, R462I, I463S, E586K, V600D, G615E
<b>CTNNB</b>	D32H, D32N, D32Y, S33C, S33F, S33P, S33Y, G34E, G34R, G34V, S37A, T41A, T41I, T41S, S45C, S45F, S45P, S45Y
<b>FBX4</b>	S8R, L23Q, G30N, P76T
<b>FBXW7</b>	R465C, R465H, R479G, R479L, R479Q
<b>FGFR2</b>	S252W, Y376C
<b>FGFR3</b>	A281V
<b>GNAQ</b>	Q209L, Q209P
<b>KIT</b>	K492R, M535I, M535T, M535V, Y553K, Y553N, K558N, K558R, V560E, G565R, N566D, V596G, P573A, P573L, T574A, R634W, V654A, N655K, T670E, T670I, Y675C, K685E, S709F, D716N, R739G, T753A, C809G, D816A, D816E, D816F, D816G, D816V, D820A, D820E, D820G, D820H, D820Y, N822H, N822K, N822Y, Y823D, A829P
<b>KRAS</b>	G13A, G13D, G13V, T58I, V59V, G60D
<b>MAP2K1</b>	F53S, K57N, D67N, Y134C, E203K, E203Q
<b>MAP2K2</b>	F57C, F57I, F57L, K61E, R388Q
<b>NRAS</b>	G48S, A59T
<b>PDGFRA</b>	N659K, D842F, D842Y, Y849C
<b>PIK3CA</b>	S326F, E418K, E542K, E542Q, E542V, E545A, E545G, E545K, E545Q, Q546E, Q546H, Q546K, Q546P, Q546R, M1004I, G1007R, Y1021C, Y1021H, R1023Q, T1025A, T1025I, T1025S, A1035T, A1035V, M1043V, N1044K, I1058F, H1065L
<b>PTPN11</b>	T507K
<b>SOS1</b>	R248H, R688Q, H888Q
<b>TP53</b>	V143A, R175H, R175L, G245C, G245R, G245S, R248G, R248GW, R273C, R273H, R273L, D281G, D281H, D281Y

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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; 6,238,871; 6,258,538; 6,300,076; 6,440,705; 6,500,621; 6,558,623; 6,569,385; 6,979,425; 6,994,969; 7,019,288; 7,025,933; 7,285,422; 7,332,275; 7,390,672; 7,419,787; 7,501,251; 7,888,127; 8,003,317; 8,034,567; 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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