

Sequenom Tools for Cancer Research

Pre-designed and custom panels for
rapid mutation profiling



SEQUENOM®

Sequenom Tools for Cancer Research

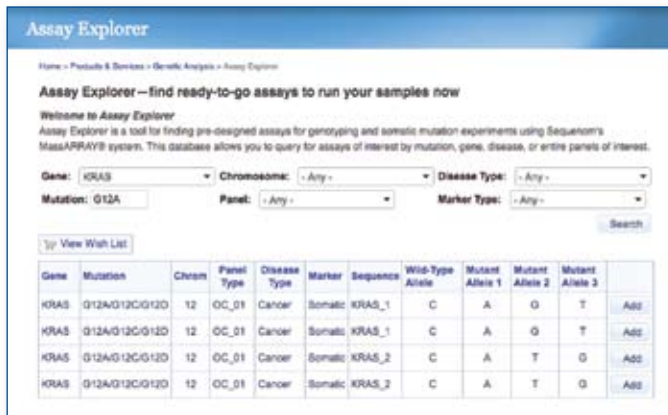
Assay Explorer™

An online resource for rapid assay selection

An online tool for finding pre-designed assays for genotyping and somatic mutation experiments

- Search for your favorite assays by mutation, gene, disease, or panel
- Request specific assays of interest or opt for an entire panel
- Take advantage of Assays by Sequenom custom design services to gain access to 10s to 100s of ready-to-go assays

Visit www.sequenom.com/explore



Assay Explorer

Home > Products & Services > Genetik Analysis > Assay Explorer

Assay Explorer—find ready-to-go assays to run your samples now!

Welcome to Assay Explorer
Assay Explorer is a tool for finding pre-designed assays for genotyping and somatic mutation experiments using Sequenom's MassARRAY® system. This database allows you to query for assays of interest by mutation, gene, disease, or entire panels of interest.

Gene: KRAS Chromosome: -Any- Disease Type: -Any-
Mutation: G12A Panel: -Any- Marker Type: -Any- [Search]

View Wash List

Gene	Mutation	Chrom	Panel Type	Disease Type	Marker	Sequence	Wild-Type Allele	Mutant Allele 1	Mutant Allele 2	Mutant Allele 3	
KRAS	G12A/G12C/G12D	12	OC_01	Cancer	Somatic: KRAS_1	C	A	G	T		Add
KRAS	G12A/G12C/G12D	12	OC_01	Cancer	Somatic: KRAS_1	C	A	G	T		Add
KRAS	G12A/G12C/G12D	12	OC_01	Cancer	Somatic: KRAS_2	C	A	T	G		Add
KRAS	G12A/G12C/G12D	12	OC_01	Cancer	Somatic: KRAS_2	C	A	T	G		Add

Assays by Sequenom

A Custom Service Program for all your assay needs

Assays by Sequenom allow you to quickly gain access to any of the assays within Assay Explorer™ or have assays designed to your preferred gene, pathway, or disease of investigation. All assays are designed using Sequenom's Assay Design tools with 2-3 rounds of optimization to provide you with 100% working assays. The assays are then run on the MassARRAY® Analyzer system by one of our scientists to verify effective PCR and primer extension.

Assays by Sequenom provide you with a number of options including:

- The reagents you need to run any OncoCarta™ Panel on your MassARRAY® system
- Custom assay or panels for somatic mutation and SNP markers including design, optimization, & reagents
- DNA sample runs against any OncoCarta™ Panel or custom design

MassARRAY, Assay Explorer, OncoCarta and MelaCarta are for Research Use Only. Not for Use in Diagnostic Procedures.



OncoCarta™ Panels

A comprehensive offering for somatic mutation profiling

Sequenom offers a family of pre-designed research mutation panels to accelerate basic cancer and translational research efforts. The OncoCarta™ Panels comprise a large collection of assays for over 50 oncogenes and tumor suppressors previously identified through GWAS, arrays, and sequencing. All assays and panels have been pre-designed and optimized for the MassARRAY® Analyzer System. This affords highly accurate and sensitive mutation detection in a variety of heterogeneous tumor samples. The entire collection of OncoCarta™ research mutation panels can be used for targeted discovery to identify candidate markers for drug discovery and development or basic cancer research studies. Alternatively a more focused selection of mutations can be designed into a custom panel to quickly validate the role of particular genes in specific cellular pathways. Key oncogenes, such as BRAF and EGFR, used as targets in a number of commercially available drugs, and tumor suppressors such as PTEN and p53 present in a large percentage of cancers, are just several within the OncoCarta™ research panel family to take advantage of through Assay Explorer™.

Use Assay Explorer™ to search through the OncoCarta™ Panel family

- **OncoCarta™ v1.0** – the first research panel for comprehensive oncogene analysis with 225 mutations and 19 genes
- **OncoCarta™ v2.0** – an extended research panel for investigation of tyrosine kinase and cell signaling pathways such as CTNNB1 and MAP2K with 152 mutations and 18 genes
- **OncoCarta™ v3.0** – a research panel with 218 mutations from 26 oncogenes and a number of tumor suppressors including PTEN, p53, and RB1
- **MelaCarta™ v1.0** – a targeted research panel for melanoma cancer screening with 72 mutations and 20 genes

OncoCarta™ Panel v1.0

Gene (# mutations)

ABL1 (14); AKT1 (7); AKT2 (2); BRAF (25); CDK4 (2); EGFR (40); ERBB2 (9); FGFR1 (2); FGFR3 (7); FLT3 (3); HRAS (10); JAK2 (1); KIT (32); KRAS (16); MET (5); NRAS (19); PDGFRA (11); PIK3CA (14); RET (6)

OncoCarta™ Panel v2.0

AKT1 (1); BRAF (8); CTTNB1 (18); FBX4 (4); FBXW7 (5); FGFR2 (2); FGFR3 (1); GNAQ (2); KIT (42); KRAS (6); MAP2K1 (6); MAP2K2 (5); NRAS (2); PDGFRA (4); PIK3CA (28); PTPN11 (1); SOS1 (3); P53 (14)

OncoCarta™ Panel v3.0

ABL1 (2); AKT1 (1); APC (12); BRAF (19); CDKN2A (7); CSF1R (6); CTTNB1 (28); EGFR (32); ERBB2 (2); FLT3 (3); HRAS (2); JAK3 (3); KIT (3); KRAS (5); MET (6); MLH1 (1); MYC (6); PDGFRA (11); PIK3CA (4); PTEN (14); RB1 (11); RET (13); SRC (1); STK11 (12); P53 (7); VHI (7)

MelaCarta™ Panel v1.0

AKT1 (1); BRAF (19); CDK4 (2); CTNNB1 (5); CXCR4 (1); EPHA10 (1); EPHB6 (2); ERBB4 (2); GNAI1 (2); GNAQ (2); KIT (5); KRAS (9); MEK2 (2); MET (2); NEK10 (1); NRAS (11); PDGFRA (1); PIK3CA (1); PTK2B (2); ROR2 (1)

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