qBiomarker Somatic Mutation PCR Array

Human PDGFR Gene

Cat. no. 337021 SMH-807AA

For real-time PCR-based, pathway-focused, somatic mutation profiling

Format	For use with the following real-time cyclers
Format A, with fluorescein	Bio-Rad® models iCycler®, iQ™5, MyiQ™, MyiQ2
Format A, with ROX™	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well blocks); Bio-Rad/MJ Research Chromo4™; Eppendorf® Mastercycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®
Format C, with ROX	Applied Biosystems models 7500 (Fast, 96-well block), 7900HT (Fast, 96-well block), StepOnePlus™, ViiA 7 (Fast, 96-well block)
Format D, with ROX	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®
Format E, with ROX	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
Format F, with ROX	Roche® LightCycler® 480 (96-well block)
Format G, with ROX	Roche LightCycler 480 (384-well block)

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Sample & Assay Technologies

Description

The Human PDGFRA Gene qBiomarker Somatic Mutation PCR Array allows the detection of 20 unique mutations in the human PDGFRA gene. PDGFRA, a receptor tyrosine kinase, plays a role in organ development and wound healing. Previous scientific reports have shown a strong association between mutations in the PDGFRA gene and gastrointestinal stromal tumors. The PDGFRA mutations found in cancer samples include gain-of-function point mutations as well as deletions and deletion-insertion mutations. The DNA sequence mutation assays in the array detect the most frequent mutations in PDGFRA compiled from over 300 reported cancer sample sequences. Each mutation assay is bench-tested for the sensitive detection of a low percentage of mutation-containing DNA in a background of wild-type genomic DNA. The 96-well format of this array profiles the mutation status of 4 samples, while the 384-well array format profiles 16 samples, and each set of plates includes qPCR mastermix. Using real-time PCR, research studies can easily and reliably detect a panel of mutations in the PDGFRA gene with this array.

For further details, consult the *qBiomarker Somatic Mutation PCR Handbook*.

Shipping and storage

qBiomarker Somatic Mutation PCR Arrays are shipped at ambient temperature or on blue ice packs. For long term storage, keep plates at –20°C. Ensure that you have the correct qBiomarker Somatic Mutation PCR Array format for your real-time cycler (see table above). qBiomarker Probe Mastermixes are shipped on blue ice packs. For long term storage, keep qBiomarker Probe Mastermixes at 4°C.

Note: Ensure that you have the correct qBiomarker Probe Mastermix, with the correct reference dye if required, for your instrument.

Note: Open the package and store the products appropriately immediately on receipt.

Assay table

Position	Gene	COSMIC ID	Nucleotide Change	Amino Acid Change	Assay Catalog #
A01	PDGFRA	736	c.2525A>T	p.D842V	SMPH010453A
A02	PDGFRA	12418	c.1698_1712del15	p.S566_E571>R	SMPH010471A
A03	PDGFRA	739	c.1682T>A	p.V561D	SMPH010452A
A04	PDGFRA	737	c.2524_2535del12	p.D842_H845del	SMPH010476A
A05	PDGFRA	12400	c.2527_2538del12	p.I843_D846del	SMPH010484A
A06	PDGFRA	12417	c.1697_1711del15	p.S566_E571>K	SMPH010472A
A07	PDGFRA	742	c.1696_1713>CGC	p.S566_E571>R	SMPH010473A
A08	PDGFRA	22416	c.1975A>T	p.N659Y	SMPH010460A
A09	PDGFRA	743	c.2021C>T	p.T674I	SMPH010461A
A10	PDGFRA	12396	c.2524G>T	p.D842Y	SMPH010481A
A11	PDGFRA	12407	c.2528_2539del12	p.I843_S847>T	SMPH010488A
A12	PDGFRA	21973	c.1659_1664delGAGGTA	p.R554_Y555del	SMPH010454A
B01	PDGFRA	12402	c.2530_2541del12	p.M844_S847del	SMPH010463A
B02	PDGFRA	28053	c.1694_1695insA	p.S566fs*6	SMPH010466A
B03	PDGFRA	12401	c.2524_2532del9	p.D842_M844del	SMPH010485A
B04	PDGFRA	12408	c.2526_2538>G	p.D842_D846>E	SMPH010489A
B05	PDGFRA	741	c.1678_1692del15	p.R560_S564del	SMPH010497A
B06	PDGFRA	12399	c.2536G>T	p.D846Y	SMPH010483A
B07	PDGFRA	12411	c.2524_2536>A	p.D842_D846>N	SMPH010491A
B08	PDGFRA	12412	c.2525_2538>GA	p.D842_D846>G	SMPH010492A
B09	PDGFRA	99000014	copy number	copy number	SMPH017176A
B10	PDGFRA	99000014	copy number	copy number	SMPH017176A
B11	SMPC	99000017	positive PCR control	positive PCR control	SMPH017179A
B12	SMPC	99000017	positive PCR control	positive PCR control	SMPH017179A
C01	PDGFRA	736	c.2525A>T	p.D842V	SMPH010453A
C02	PDGFRA	12418	c.1698_1712del15	p.S566_E571>R	SMPH010471A
C03	PDGFRA	739	c.1682T>A	p.V561D	SMPH010452A
C04	PDGFRA	737	c.2524_2535del12	p.D842_H845del	SMPH010476A
C05	PDGFRA	12400	c.2527_2538del12	p.I843_D846del	SMPH010484A
C06	PDGFRA	12417	c.1697_1711del15	p.S566_E571>K	SMPH010472A
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H11	SMPC	99000017	positive PCR control	positive PCR control	SMPH017179A
H12	SMPC	99000017	positive PCR control	positive PCR control	SMPH017179A

Array layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA
B	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	SMPC	SMPC
C	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA
D	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	SMPC	SMPC
E	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA
F	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	SMPC	SMPC
G	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA
H	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	PDGFRA	SMPC	SMPC

qBiomarker Somatic Mutation PCR Array products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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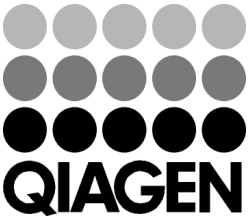

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