

# Pharmacogenomics testing using real-time PCR

A comprehensive portfolio designed to deliver the results you need



Pharmacogenomics (PGx) is an exciting and powerful emerging field that promises to improve health care outcomes. PGx provides meaningful data that can help prevent adverse drug reactions, deliver beneficial treatments faster, and lower medical costs. When you partner with us, you gain access to a wide range of PGx solutions and the vast expertise we've acquired from a decade of driving advancements in PGx.

Launched in 2012, the Applied Biosystems™ real-time PCR solution for PGx research testing has analyzed millions of samples to date. Combining the power of the Applied Biosystems™ QuantStudio™ 12K Flex Real-Time PCR System with qualified Applied Biosystems™ TaqMan® Assays for genotyping, this solution delivers a sample-to-answer workflow that allows you to easily begin PGx testing.

- **Fully qualified, extensive menu of targets**—thousands of TaqMan Assays for SNP genotyping are available, targeting the most common DME markers
- **Flexible formats**—based on your desired throughput, our PGx solution has been optimized for Applied Biosystems™ OpenArray™ and TaqMan® array plates and is available in off-the-shelf and custom panels (Table 1)
- **Rapid and cost-effective**—combination of gold-standard TaqMan Assays with the high-throughput OpenArray plate format enables analysis of common actionable variants and multiple targets per sample

## One powerful system, multiple applications

The QuantStudio 12K Flex Real-Time PCR System has the capabilities you need to follow your research leads with ease. It provides the flexibility to extend your research from SNP genotyping to copy number variation (CNV) analysis, miRNA analysis, or gene expression analysis. Run CNV analysis experiments on this instrument in a 384-well format or simultaneously on a separate instrument.

Applied Biosystems™ AlleleTyper™ Software is a fast and easy tool that is used to determine the haplotypes of your samples. Once a translation table is set up for a study of interest, such as CYP2D6, AlleleTyper Software will analyze data from Applied Biosystems™ TaqMan® Genotyper and CopyCaller™ Software in just a few quick steps.

## Our AV consulting services help accelerate launch time and reduce costs

Our analytical validation (AV) consulting services provide technical project management of your lab's AV to help verify that the assay is tested for required parameters. On average, we can help you complete the validation process 62–75% faster than on your own; and by supplying control samples, data analysis, and reporting, we can help you reduce costs up to 50% for your completed AV.

Find out more at [thermofisher.com/complianceservices](http://thermofisher.com/complianceservices).

**Table 1. Real-time PCR formats available for PGx testing.** Our PGx solution has been optimized for OpenArray panels (off-the-shelf and custom) and TaqMan array plates.

Feature	Specification	
	OpenArray plate	TaqMan array plate
No. of wells	2,880	12 to 384
No. of targets	60 preselected Applied Biosystems™ TaqMan® PGx Assays Early access: 120 preselected TaqMan PGx Assays Custom panels also available	Available as custom only
No. of samples	Up to 48 and 24 samples per plate, respectively	Up to 2 samples per plate (16-assay format)
Master mix volume	120 µL per OpenArray plate	960 µL per TaqMan array plate
Reaction volume	33 nL	5 µL
Samples/day	Up to 576	Up to 192
Compatible instruments	QuantStudio 12K Flex Real-Time PCR System with OpenArray block	QuantStudio 5, 6 Flex, 6 Pro, 7 Flex, 7 Pro, and 12 Flex systems with a 384-well block
Time-to-results	7 hours	4 hours
List of verified assays	<a href="http://thermofisher.com/pgx">thermofisher.com/pgx</a> Contact your technical sales specialist for early access panel content and ordering	

## Ordering information

Product	Unit size	Cat. No.
<b>SNP genotyping with OpenArray plates</b>		
TaqMan OpenArray PGx Express 120 Panel*	1 plate	4471116
TaqMan OpenArray PGx Express 60 Panel	1 plate	4488847
TaqMan OpenArray Genotyping Plates, custom format	26 assays x 96 samples	4471114
	60 assays x 48 samples	4471115
	120 assays x 24 samples	4471116
	180 assays x 16 samples	4471117
TaqMan OpenArray Genotyping Master Mix	5 mL	4404846
TaqMan Array Plates, 384-well, custom	1 plate	4462783
<b>Copy number analysis</b>		
TaqMan Copy Number Assays	360 reactions	4400291
TaqMan Copy Number Reference Assay, human, RNase P	750 reactions	4403326
TaqMan ProAmp Master Mix	10 mL	A30866

\* This is an early access product. Panel content and format may change prior to launch.

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