

Cancer research

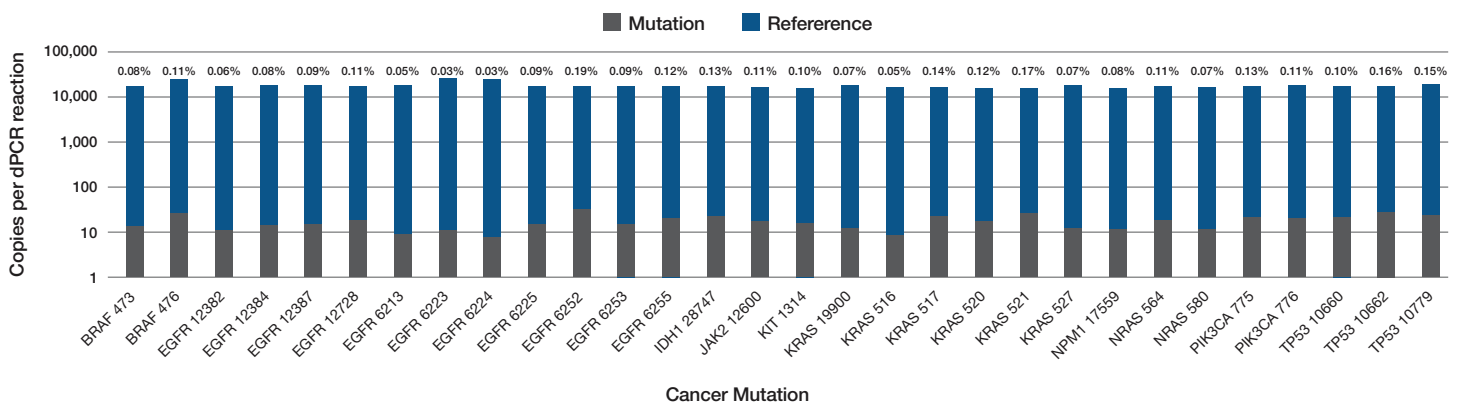
Absolute Q Liquid Biopsy Digital PCR Assays

Rare target quantification using digital PCR

Identification and tracking of cancer-causing mutations via liquid biopsy are increasingly being used for measuring potential therapeutic response, quantifying residual tumor burden, and studying resistance to potential targeted therapies. However, detecting circulating tumor DNA for liquid biopsy applications is challenging because the targets of interest are only a small fraction of the total circulating cell-free nucleic acids collected in the sample. With its unparalleled precision and sensitivity, digital PCR (dPCR) is ideally suited for liquid biopsy applications and rare mutation detection.

Liquid biopsy analysis relies on highly sensitive assays to detect low-abundant quantities of highly fragmented, tumor-derived nucleic acids. Applied Biosystems™ Absolute Q™ Liquid Biopsy Digital PCR Assays are a precise, fast, and simple solution for the detection and quantification of common cancer-related mutations, making them ideal for the study of response and resistance. Each predesigned assay has been verified using controls to detect the target cancer-related mutation down to a 0.1% variant allele frequency.

Quantification of cancer mutations using Absolute Q Liquid Biopsy Digital PCR Assays on the Applied Biosystems™ QuantStudio™ Absolute Q™ Digital PCR System



Predesigned assays simplify your workflow

Predesigned Absolute Q Liquid Biopsy Digital PCR Assays consist of a forward primer, one or more target-specific probes, and a reverse primer premixed together at specified concentrations. They require no further design, optimization, or verification. Just add your sample and reagent, then run your experiment.

- **Simple**—streamlined workflow for ease of use with your dPCR instrument
- **Fast**—minimal hands-on time with results in 90 minutes when used with the QuantStudio Absolute Q Digital PCR System
- **Dependable**—analyze your data with confidence using verified assays backed by a performance guarantee*

We stand behind every predesigned Absolute Q assay you buy from us

We guarantee the performance of our predesigned Absolute Q assays for dPCR experiments. Our application-specific portfolio of assays enables you to obtain the highest quality and performance available. These assays are designed and verified using up-to-date annotations and gold-standard Applied Biosystems™ TaqMan® chemistry.

If an Absolute Q dPCR assay does not perform according to conformance documentation, we will replace it at no cost, or credit your account.*

Find out more at
thermofisher.com/absoluteqassayguarantee

Ordering information

Gene	Amino acid mutation	CDS mutation	COSM ID	Cat. No.
Absolute Q Liquid Biopsy Digital PCR Assays				
BRAF	p.V600K	c.1798_1799delinsAA	473	A52769
	p.V600E	c.1799T>A	476	A52743
	p.L747_A750delinsP	c.2239_2248delinsC	12382	A52777
	p.E746_S752delinsV	c.2237_2255delinsT	12384	A52787
	p.L747_P753delinsQ	c.2239_2258delinsCA	12387	A52795
EGFR	p.E746_T751del	c.2236_2253del	12728	A52796
	p.L861Q	c.2582T>A	6213	A52762
	p.E746_A750del	c.2235_2249del	6223	A52756
	p.L858R	c.2573T>G	6224	A52747
	p.E746_A750del	c.2236_2250del	6225	A52770
	p.G719S	c.2155G>A	6252	A52765
	p.G719C	c.2155G>T	6253	A52797
	p.L747_S752del	c.2239_2256del	6255	A52780
IDH1	p.R132C	c.394C>T	28747	A52772
JAK2	p.V617F	c.1849G>T	12600	A52746
KIT	p.D816V	c.2447A>T	1314	A52757
	p.A146V	c.437C>T	19900	A52781
KRAS	p.G12C	c.34G>T	516	A52750
	p.G12S	c.34G>A	517	A52760
	p.G12V	c.35G>T	520	A52753
	p.G12D	c.35G>A	521	A52745
	p.G13C	c.37G>T	527	A52782
NPM1	p.W288Cfs*12	c.860_863dup	17559	A52751
NRAS	p.G12D	c.35G>A	564	A52766
	p.Q61K	c.181C>A	580	A52771
PIK3CA	p.H1047R	c.3140A>G	775	A52749
	p.H1047L	c.3140A>T	776	A52761
TP53	p.R273H	c.818G>A	10660	A52767
	p.R248Q	c.743G>A	10662	A52768
	p.R273L	c.818G>T	10779	A52779
Custom dPCR assay				Please inquire

 Learn more about Absolute Q Liquid Biopsy dPCR Assays at thermofisher.com/absoluteqassays

Powerfully simple dPCR

Simplify your workflow even further by combining Absolute Q dPCR assays with the QuantStudio Absolute Q Digital PCR System—DNA sample to results can be done in <2 hours with minimal hands-on time. Moreover, there's no steep learning curve, as the workflow is identical to real-time PCR.

To complete your dPCR solution, use Applied Biosystems™ Absolute Q™ DNA Digital PCR Master Mix. Optimized for use with the QuantStudio Absolute Q Digital PCR System and Absolute Q dPCR assays, the 5X formulation enables analysis of a higher sample volume and delivers accurate quantification of DNA targets without using a standard curve.



QuantStudio Absolute Q system

Product	Cat. No.
QuantStudio Absolute Q Digital PCR System	Please inquire
Absolute Q DNA Digital PCR Master Mix (5X)	A52490

* Terms and conditions apply. To see full details of the guarantee, go to thermofisher.com/absoluteqassayguarantee.

 Learn more about Absolute Q Liquid Biopsy dPCR Assays at thermofisher.com/dpcr-liquidbiopsy

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