Thermo Scientific Solaris qPCR Gene Expression Assays

Detect all known splice variants of your target gene for comprehensive target analysis.

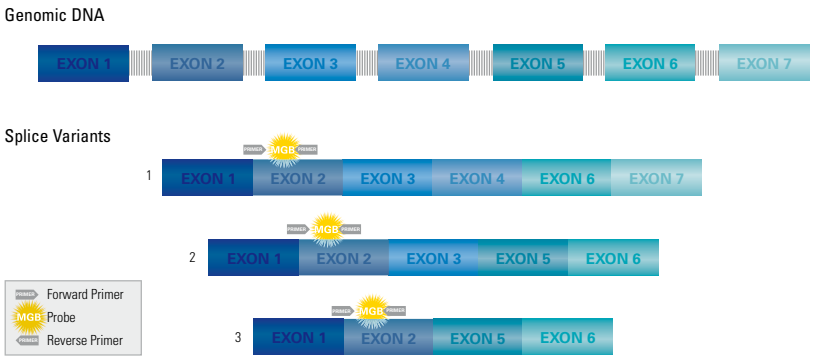

Fig. 1: Solaris qPCR Assays are designed to a consensus sequence among all known splice variants so one assay provides comprehensive results.

Easy to Choose

With one simple search for your gene, you will receive one recommended probe and primer assay for high performance real-time PCR quantification. Since Thermo Scientific Solaris qPCR Assays are designed to detect all known splice variants of your target gene, one assay is all you need.

Splice Variant Coverage

To achieve accurate target quantification, the expression levels of all known alternatively spliced transcripts should be measured. Solaris Assays are unique in that they are designed to detect all known splice variants.

Advanced Probe Configuration

The unique Solaris probe configuration and chemistry, MGB™ and Superbases, lowers background signal and increases genome coverage and specificity.

Expert Assay Design

The Solaris design algorithm incorporates unique design features and strict selection criteria in order to deliver high performance qPCR assays. Solaris qPCR Assays have been designed using this novel algorithm as well as BLAST scoring to ensure optimal assay specificity.

Optimized for Success

Solaris probe technology gives high specificity with high signal-to-background ratio. Furthermore, Thermo Scientific Solaris qPCR Master Mixes are optimized to deliver high performance results with universal thermal cycling conditions across instrument platforms.

Thermo Scientific Solaris qPCR Gene Expression Assays:

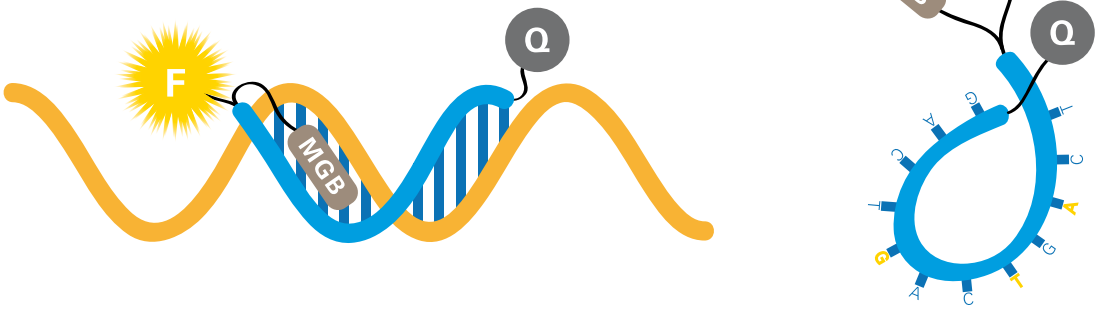

Fig 2: The unique Solaris probe configuration results in lower background signal. The Solaris MGB probe binds to linearized target in the annealing step and is displaced by the advancing DNA polymerase. Once back in its free state, the probe forms a coiled structure where the reporter and quencher are brought into close proximity by the MGB moiety, creating a low background signal.

Solaris Assays give high performance and reliable target detection at low input copy number

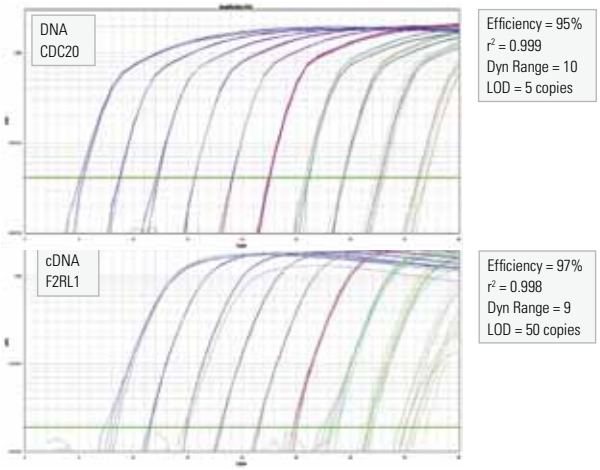

Fig 3: Solaris assays give reliable detection even at very low input concentrations, as judged by the PCR efficiency and r2 values. Ten 10-fold dilutions of cDNA synthesized from synRNA amplicon sequence or DNA amplicon sequence was amplified on an ABI 7900HT instrument using Solaris qPCR Gene Expression Assay for F2RL1 or CDC20, respectively. The log-scale amplification curves and standard curves are shown along with the performance of each assay including efficiency, r2 value, dynamic range out of 10 log10 dilutions and the lower limit of detection.

Solaris Assays give high performance results across instrument platforms and targets

	Target	Gene ID	PCR Efficiency (%)	Repeatability (r^2)
ABI 7900HT	RPS1	6222	98	0.996
	CDC45	8318	100	1.000
	ZYX	7791	100	0.998
	RPS27L	51065	100	1.000
	RPLP2	6181	101	1.000
Roche LightCycler 480	C9orf86	55684	97	0.988
	MTHFD2	4522	98	1.000
	BACH1	571	99	0.999
	ACTB	60	100	0.999
	VIM	7431	101	1.000
Mx3000P Stratagene	PPIB	5479	91	0.998
	B2M	567	93	0.999
	POLR2H	5437	93	0.996
	CENPE	1062	98	0.996

Figure 4: Solaris gives efficient, repeatable detection of all gene targets on all commonly used qPCR platforms and targets.

Ordering Information:

	Part Number	Reactions (25 µL volume)	Fill Volume	Sequence Information Provided
Solaris qPCR Gene Expression Assays (20X solution)	Gene specific www.thermo.com/SolarisSearch	100	125 µL	✓
		200	250 µL	✓
		400	500 µL	✓
		1000	1250 µL	✓

The Solaris detection system requires Solaris qPCR Master Mix for optimal results. When placing your online order, select the high performance Solaris mix optimized for your qPCR instrument model. For more information, please visit: www.thermo.com/Solaris

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