

## AMPLIFICATION

# Precision Melt Supermix

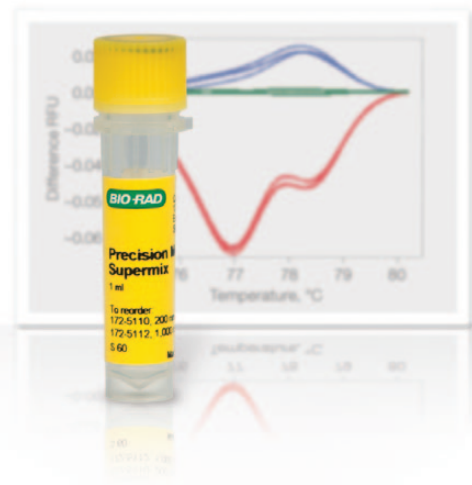
- Superior discrimination of all 4 SNP classes
- Optimized formulation for methylation analysis

## Discriminate Even Challenging Class IV SNPs with Ease

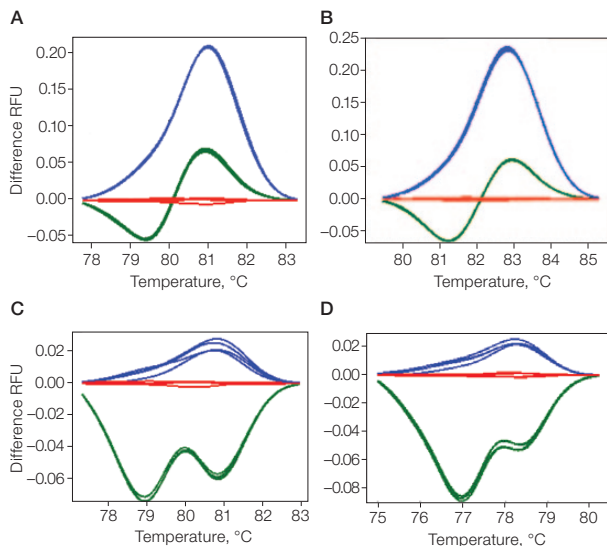
Bio-Rad introduces precision melt supermix, a high-performance supermix, to complement its line of products for high resolution melt (HRM) analysis, delivering superior discrimination for both genotyping and epigenetic analyses.

- Optimized formulation containing EvaGreen dye delivers robust PCR and HRM performance
- Sensitive and effective discrimination of class I–IV single nucleotide polymorphisms (SNPs) across a broad range of amplicons
- Accurate detection of CpG methylation status for epigenetic studies
- Exceptional room temperature stability for high-throughput HRM studies
- Reliable performance on any HRM-capable thermal cycler

For more information, visit us on the web at [www.bio-rad.com/supermixes](http://www.bio-rad.com/supermixes).

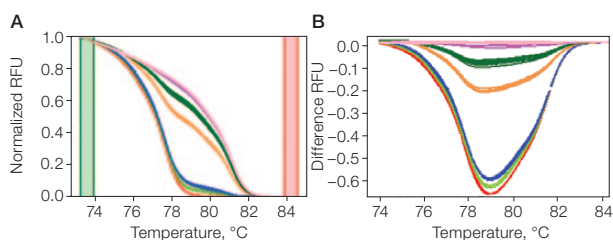


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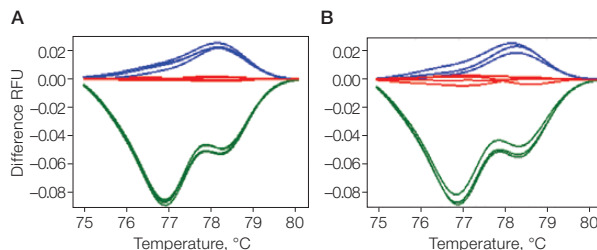
**Precision melt supermix delivers robust HRM for class I-IV SNPs.**

Discrimination of **A**, class I (A to G substitution); **B**, class II (G to T substitution); **C**, class III (G to C substitution); and **D**, class IV (A to T substitution) SNP genotypes from mouse genomic DNA using precision melt supermix. Wild type (■), heterozygote (■), and homozygous mutant (■) are shown in the difference plots normalized to wild-type samples. HRM analysis was performed on a CFX384™ real-time PCR detection system and genotypes were automatically assigned by Precision Melt Analysis™ software. Amplification was carried out for 35 cycles. Total run time including melt curve = 150 min. RFU, relative fluorescence units.



**Accurate methylation detection with precision melt supermix.**

**A**, normalized melt curve; **B**, difference curve. Mixtures of methylated and unmethylated human genomic DNA of varying ratios were analyzed using HRM on a CFX384 real-time PCR detection system. Increasing amounts of methylated DNA (■, 0%; ■, 2%; ■, 5%; ■, 50%; ■, 75%; ■, 95%; and ■, 100%) were analyzed for methylation of the human *RARB2* gene. The genomic region contains 7 CpG sites and is 88 base pairs in length. Total run time including melt curve = 190 min. RFU, relative fluorescence units.



**Exceptional stability enables high-throughput genotyping analysis with precision melt supermix.** Specific amplification and accurate discrimination of a class IV SNP (84 bp amplicon) from mouse genomic DNA was performed on a CFX384 real-time PCR detection system either 0 hr (**A**) or 48 hr (**B**) after reaction setup. Wild type (■), heterozygote (■), and homozygous mutant (■) are shown in the difference plots normalized to wild-type samples. Total run time including melt curve = 150 min. RFU, relative fluorescence units.

**Ordering Information**

| Catalog # | Description  |
|-----------|--|
| 172-5110  | <b>Precision Melt Supermix</b> , 200 x 20 µl reactions, 2 x 1 ml, 2x real-time PCR mix contains dNTPs, iTaq™ DNA polymerase, MgCl <sub>2</sub> , EvaGreen dye, stabilizers   |
| 172-5112  | <b>Precision Melt Supermix</b> , 1,000 x 20 µl reactions, 10 x 1 ml, 2x real-time PCR mix contains dNTPs, iTaq DNA polymerase, MgCl <sub>2</sub> , EvaGreen dye, stabilizers |

EvaGreen is a trademark of Biotium, Inc. Bio-Rad Laboratories, Inc. is licensed by Biotium, Inc. to sell reagents containing EvaGreen dye for use in real-time PCR, for research purposes only. HRM is a trademark of QIAGEN GmbH.

Bio-Rad's real-time thermal cyclers are licensed real-time thermal cyclers under Applera's U.S. Patent Number 6,814,934 B1 for use in research, human in vitro diagnostics, and all other fields except veterinary diagnostics.

Bio-Rad's real-time thermal cyclers are covered by one or more of the following U.S. patents or their foreign counterparts owned by Eppendorf AG: U.S. Patent Numbers 6,767,512 and 7,074,367.

Purchase of this product includes an immunity from suit under patents specified in the product insert to use only the amount purchased for the purchaser's own internal research. No other patent rights are conveyed expressly, by implication, or by estoppel. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.



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