

CHAI

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SYBR® is a registered trademark of Molecular Probes, Inc.



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001706 Rev A

STORAGE, HANDLING AND DISPOSAL

Store at 4 °C (short term) or -20 °C (long term), protected from light. Thaw, spin down contents of tube, and mix well before use. The dye is cell membrane permeable. The mutagenicity of the dye is unknown, therefore exercise caution during handling and disposal.



CHAI GREEN 20X

Catalog #: R01200

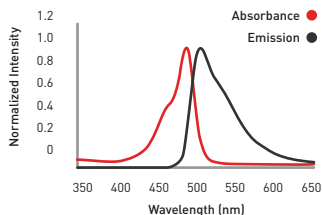
For research use only

Store at -20 °C
Can be stored at 4 °C for up to a week
Protect from light

INTRODUCTION

Chai Green is a double stranded DNA binding dye that binds to DNA's minor groove and exhibits extremely low PCR inhibition. The unbound dye exhibits minor fluorescence, and displays enhanced fluorescence when bound to double-stranded DNA. Its excitation-emission spectrum is very similar to SYBR Green I and hence can be used on any qPCR instrument compatible with SYBR Green. Chai Green shows decreased PCR inhibition and increased fluorescence compared to SYBR Green, and is designed for both standard melt curve analysis and HRM (High Resolution Melt). The fluorescence spectrum of Chai Green is shown below.

Chai Green Fluorescence Spectrum



FEATURES OF CHAI GREEN

- Thermally stable dye is designed for qPCR and High Resolution Melt (HRM) analysis
- 1X concentration is not inhibitory to qPCR
- Compatible with fast PCR protocols
- Stable in PCR buffer even after 50 thermal cycles, withstands repeated freeze-thaws, and exhibits no change in melting temperature when used at higher concentrations.
- Compatible with many commercially available PCR mixes.

PRODUCT DETAILS

This product is supplied as a 20X solution in water.

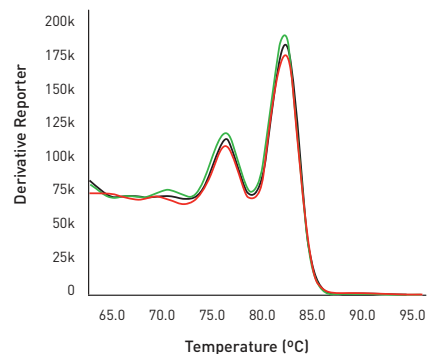
PROTOCOL

Use 1X concentration of the dye in the qPCR reaction. Add 1.25 μ L 20X Chai Green dye/25 μ L reaction. Use a thermocycler capable of measuring SYBR Green I/FAM fluorescence during the extension phase of qPCR. 1X Chai Green dye can also be used for melt curve and HRM analysis.

Chai Green used for qPCR Amplification followed by Melt Curve Analysis

Two gene products, GAPDH (T_m =82.4) and HPRT (T_m =77.9) were amplified from a single gene fragment in the presence of 1x Chai Green and analyzed by Melt Curve Analysis (MCA). Two distinct peaks for the two products are obtained. The MCA was performed in triplicate.

Chai Green used for Melt Curve Analysis



QUALITY CONTROL ASSAYS

Quality of Chai Green is tested by measuring the absorbance ($0.1 < \text{Value} < 0.18$) at 488 nm.

Quality is also measured by determining its maximum fluorescence value in a qPCR reaction with a five point standard curve using lambda phage DNA as a template.



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