7040 Virginia Manor Road
Beltsville, MD 20705, USA
Web: www.abpbio.com
Email: info@abpbio.com

SYBR Green I, 200× in DMSO

Catalog Number: D010-1, D010-2

Catalog Number	Packaging Size	Storage
D010-01	1 mL	-20 °C Protect from light
D010-02	5×1 mL	

Product Description

SYBR Green I is a green fluorescent nucleic acid dye with features that make the dye useful for several applications including qPCR, melt curve analysis, routine solution DNA quantification and capillary gel electrophoresis. SYBR Green I is essentially non-fluorescent by itself, but becomes highly fluorescent upon binding to dsDNA. The unique properties of SYBR Green I have made it particularly useful in quantitative real-time PCR (qPCR) application.

SYBR Green I (PCR Grade) 200× in DMSO is specifically formulated for qPCR use. The qPCR protocol provided below is for PCR using regular non-hotstart Taq. Use of a hot-start Taq may require some adjustment of PCR buffer composition in terms of ionic strength and pH to best take the advantage of SYBR Green I dye.

Protocol

The following protocol is recommended for use with non-hotstart Taq.

1. Set up the PCR reaction as follows:

   5 µL of 10× PCR buffer without magnesium
   2.5 µL of 50mM $MgCl_2$
   5 µL of 2 mM dNTP each
   0.25 µL of 200× SYBR Green I
   1-5 units of Taq DNA polymerase
   0.1-1 µM each of primers (final concentrations)
   1 µL of DNA template
   ddH_2O to a final volume of 50 µL.

2. Perform real-time PCR on a thermocycling fluorometer and record the fluorescence signal at the annealing or extension step.

Note: When using ABI Sequence Detection Systems, make sure to select NONE for the passive reference under the tab WELL INSPECTOR.

Note: BSA may be required if the reaction is run on a Roche LightCycler. A final BSA concentration of 0.5 mg/mL may be sufficient.