

BOXTO

Control for primer dimers in probe-based qPCR assays

Introduction

BOXTO is a cyanine dye, developed by TATAA BioCenter for use in quantitative real-time PCR (qPCR), that shows a more than 250-fold fluorescence increase when bound to dsDNA in the JOE channel, and therefore shows the formation of primer dimers.

The maximum dye absorbance, free in solution, is found at 482 nm. When the dye binds to dsDNA, the maximum absorbance changes to 515 nm and the maximum emission to 552 nm.

BOXTO can be used as an unspecific dye for qPCR applications or other applications where staining of dsDNA is wanted.

Since dissociation curves cannot be used in probe-based qPCR assays, BOXTO can be used in parallel with FAM-labeled probes, and the dissociation curve can be performed after amplification. Quantification is then performed on the FAM channel and dissociation curve on the JOE channel.

Content

15 μ l 5 mM stock solution of BOXTO in DMSO sufficient for approximately 1500 rxns at 25 μ l.

Storage

The stock solution is stored at -20°C. Once diluted in water, the dye is preferably kept at +4°C for a maximum of 1 month. Repeated freeze-thaw cycles are not recommended.

Use

Dilute the 5 mM stock solution 25x to obtain a 200 μ M working solution. Apply this to qPCR reactions in a 1:100 volume.

Research use only