Glowing products for science

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N-Flux™ 5X Digital PCR Master Mix

A 5X master mix specially formulated to address the complexities of reagent flow through dPCR chips and plates to achieve optimal sample partitioning and maximum end-point fluorescence.

Product attributes

Reference dye	With Separate ROX
Storage Conditions	Store at -10 to -35 °C, Protect dye component from light
Shelf life	Guaranteed for at least 12 months from date of receipt when stored as recommended

Product Description

N-Flux™ 5X Digital PCR Master Mix is a high-performance, dye-free master mix specially formulated to address the complexities of reagent partitioning within microfluidic digital PCR plates and chips. Developed for chip-based digital PCR (cdPCR) instruments in collaboration with Combinati, we offer this master mix for digital PCR assays and R&D development of novel dPCR and qPCR platforms.

- Sensitive, robust, and reproducible performance in dPCR and qPCR assays
- Minimizes interactions with hydrophobic plastic surfaces for optimal sample partitioning
- Maximizes end-point fluorescence for superior separation between positive and negative partitions
- Validated for multiplex or singleplex, genotyping, and copy number variation dPCR and qPCR
- Suitable for all fluorescent probe types, including TaqMan®, BHQ®, and molecular beacons
- 5X concentration facilitates PCR with dilute or large sample volumes
- Formulated with Cheetah™ HotStart Taq for fast cycling protocols

Kit Components

- N-Flux™ 5X Digital PCR Master Mix
- ROX Reference Dye

A Novel Master Mix Optimized for Microfluidics

N-Flux™ 5X Digital PCR Master Mix is designed to optimize partitioning and minimize sample adsorption during flow through the microfluidic channels of the chips and plates used in cdPCR. The master mix maximizes end-point fluorescence for superior separation between positive and negative partitions resulting in sensitive and accurate results. N-Flux™ 5X Digital PCR Master Mix has been validated in singleplex and multiplex probe-dPCR reactions. Using the Combinati Absolute Q® digital PCR platform, N-Flux™ 5X Digital PCR Master Mix reproducibly performed genotyping and copy number variation analysis with quantitative discrimination. The master mix is suitable for all fluorescent probe-based technologies, including hydrolysis probes (such as TaqMan® and dual-labeled BHQ® probes) and displacement probes (like molecular beacons). Contact us to inquire about custom formulations for your platform development project.

While N-Flux™ 5X Digital PCR Master Mix is formulated to address the complexities of flow through microfluidic chambers, the 5X concentration can also simplify the work flow for qPCR users. The high concentration gives flexibility and facilitates PCR analysis of large sample volumes or samples that are too dilute for traditional 2X master mixes. See our Forget-Me-Not™ Master Mixes for EvaGreen® dye-based or probe-based quantitative real-time PCR.

The kit contains master mix with Cheetah™ HotStart Taq DNA Polymerase and dNTPs in a specially formulated buffer and includes a separate vial of ROX passive reference dye for optional use.

Cheetah™ HotStart Taq DNA Polymerase

Biotium's proprietary chemically modified hot-start DNA Polymerase. Cheetah™ Taq is completely inactive at room temperature, but is fully activated in 2 minutes at 95°C with high activity recovery, making it particularly suitable for fast PCR.

Absolute Q is a registered trademark of Combinati; BHQ is a registered trademarks of LGC Biosearch Technologies; TaqMan is a registered trademark of Roche Diagnostics.