Steinbrenner Laborsysteme GmbH

PLEXUS DIGITAL PCR

PLEXUS dPCR Master Mix for QIAGEN QIAcuity

Article	Content
SL-9304_smp	0.5 ml, 50 rxn × 40 µL
SL-9304-1ML	1 ml, 100 rxn × 40 µL

Long-Term Storage
at -20°C in the dark

Short-Term Storage
at 4°C in the dark

DESCRIPTION

Our **PLEXUS dPCR Master Mix for Qiagen QIAcuity** is an optimized ready-to-use 4x Master Mix for probe-based assays such as Taqman®, Beacons, MGB or Mediator Probes.

It contains a proprietary **HotStart DNA Polymerase**, as well as all other components in concentrations optimized for use with the Qiagen QIAcuity digital PCR system. It provides fast kinetics, a sensitivity as low as 1 DNA/cDNA copy per nanowell, target amplification even for difficult templates and multiplexing of >4 targets.

The PLEXUS dPCR Master Mix contains all components - you just need to add primers and template DNA/cDNA.

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Recommended Reaction Mixture per Well

BEFORE YOU START

- Once thawed, invert the Master Mix tube 6–8 times.
- Avoid vortexing the Master Mix to prevent damaging the enzyme.
- We recommend preparing a 10x concentrated primer-probe mix for easier handling (e.g. for 0.8 µM forward primer, 8 µM reverse primer and 4 µM probe).

Component	Stock Concentration	Nanoplate 8.5k (24-well, 96-well)	Nanoplate 26k (24-well)	Final Concentration
4x PLEXUS dPCR Master Mix	4x	3 µl	10 µl	1x
10x Primer–Probe Mix 1	8 µM forward primer 8 µM reverse primer 4 µM probe	1.2 µl	4 µl	0.8 µM forward primer 0.8 µM reverse primer 0.4 µM probe
For multiplex only: 10x Primer–Probe Mix 2, 3, 4, 5	8 µM forward primer 8 µM reverse primer 4 µM probe	1.2 µl	4 µl	0.8 µM forward primer 0.8 µM reverse primer 0.4 µM probe
Restriction Enzyme (optional)	–	up to 1 µl	up to 1 µl	0.025–0.25 U/µl
Template DNA or cDNA	–	variable	variable	0.1 - 100 ng / Reaction
Sterile Water	–	variable	variable	–
Total reaction volume		12 µl	40 µl	

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Standard Protocol

1. Prepare the reaction mix without template, it is not necessary to keep the components on ice during preparation.
2. Pipette the reaction mix (excluding the template) into the wells of a standard PCR plate. Add template DNA or cDNA to each well containing the reaction mix.

NOTE

For RNA as template, we recommend our PLEXUS High-Sensitivity 2-Step RT-dPCR Mix (SL-9321) as it allows for up to 6.6 µl (9.5k) and 22 µl (26k) reverse-transcriped cDNA input.

3. Transfer each reaction from the standard PCR plate into the wells of a nanoplate and seal it properly.
4. Leave the plate a room temperature for 10 minutes, if a restriction enzyme for DNA digestion was added.

CYCLING CONDITIONS

	Time	Temperature
Initial Denaturation and Activation	2 minutes	95°C
Denaturation	10 - 15 seconds	95°C
Annealing/Extension	10 - 30 seconds	60°C depending on primer

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Applications

dPCR application

QUALITY CONTROL

Our **PLEXUS dPCR Master Mix** for Qiagen QIAcuity is subject to strict quality controls. Each lot is tested in a probe-based qPCR with cDNA and DNA input and must conform to our quality control chart. Enzyme purity and homogeneity of >98% is validated by Bioanalyzer SDS protein electrophoresis.

The **PLEXUS dPCR Master Mix** for Qiagen QIAcuity is free of:

- RNA
- DNA
- RNase
- DNAse
- Endo- & Exonuclease activity

FURTHER INFORMATION

For more information, please visit our website: **www.steinbrenner.de**

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Notes

DID YOU KNOW?

- This PLEXUS dPCR Master Mix already contains a reference dye compatible with the Qiagen QIAcuity.
- All PLEXUS dPCR Master Mixes remain stable for several weeks at room temperature. To reduce freeze-thaw stress, we recommend storing the product at 4°C in the refrigerator for the duration of use.

NOTE

For maximum efficiency and specificity, adjustments of annealing temperature as well as extension time, primer/probe concentration and template concentration may be needed.

NOTE

Standard cycling conditions can be applied out-of-the box for the majority of dPCR assays. For maximum efficiency and specificity, adjustments of annealing temperature as well as extension time, primer/probe concentration and template concentration may be needed.

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Further Products

Products that may also interest you

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