



> 2X Master Mix Standard

| cat. no. | amount | note |
|-------------------|--------|-------------------------|
| STS-XMMixW 200* | 5ml | 2X XtraWhite Master Mix |
| STS-XMMixW 1000* | 25ml | 2X XtraWhite Master Mix |
| STS-XMMixRTL 200 | 5ml | 2X XtraRTL Master Mix |
| STS-XMMixRTL 1000 | 25ml | 2X XtraRTL Master Mix |

*2X XtraWhite Master Mix is supplied with appropriate quantity of 6X Loading Dye

2X XtraWhite Master Mix and 2X XtraRTL Master Mix (Genespin proprietary formulation), are two premixed, ready-touse solution containing Xtra-Taq Pol, dNTPs and MgCl2 in a Reaction Buffer optimized for use in PCR amplification of targets present in low copy number and to avoid amplification of non-specific products. Both buffers contain 3.0mM magnesium, PCR enhancers and thickening agents (vortex thoroughly prior to use).

2X XtraRTL Master Mix contains dyes that allow gel loading and electrophoresis of the sample directly from the PCR tube, without further manipulation. 2X XtraWhite Master Mix is supplied with appropriate quantity of 6X Loading Dye.

FOR RESEARCH USE ONLY

SHIPPING Shipped in green ice.

STORAGE Store at -20C°. Avoid freeze/thaw cycles.

SHELF LIFE 12 months

FORM Liquid

CONCENTRATION 2X conc.



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Assay Set-Up:

Before starting, vortex all components thoroughly to ensure homogeneity.

Prepare a premix for the number of assays you need according to the following protocol:

| component | stock conc. | final conc. | 30ul reaction |
|---------------|-------------|--------------|---------------|
| 2X Master Mix | 2X | 1X | 15.0ul |
| primers | 1ug/ul each | 50ng/ul each | 2ul each |
| DNA Template | - | - | 10-20ng |
| MG Water | - | - | up to 30ul |

Cycling conditions:

Spin down the tubes/plate briefly to remove bubbles and place them into the cycler.

| denaturation | 95°C | 5 min | 1× |
|---------------|---------|--------|-------|
| denaturation | 95°C | 30 sec | |
| annealing (1) | 50-68°C | 30 sec | 0-35> |
| extension (2) | 72°C | 30sec | 2 |

1)The annealing temperature depends on the melting temperature of the primers used.

2)The elongation time depends on the length of the fragments to be amplified. A time of 1 min/kb is recommended.



RTL

Comparisons of the amplification efficiency of new **2X Master Mixes Standard** were performed using serial dilutions (1:10, 1:100, 1:1000) of Kiwi DNA and specific primers corresponding to pathogen PSA. The results are shown above. New GeneSpin Master Mixes demonstrated excellent specificity and high efficiency in amplifying the pathogen.

Dyes migration

White

All dyes migrates at the same rate as a duplex DNA fragment and does not interfere with DNA migration when it is used as a loading dye for agarose gel electrophoresis.

| RTL Orange | Orange G migration TAE<50bp; TBE <50bp |
|-----------------|--|
| RTL Dark Green | Orange G migration TAE<50bp; TBE <50bp Xylene Cyanoff FF migration TAE 4160bp; TBE 3030bp |
| RTL Green | Tartrazine migration TAE<40bp; TBE <40bp Xylene Cyanoff FF migration TAE 4160bp; TBE 3030bp |
| RTL Bright Blue | Xylene Cyanoff FF migration TAE 4160bp; TBE 3030bp |