green line

Scientist to Scientist

GeneSpin PCR green line

No more post or pre-staining protocol for DNA on Agarose Gel

GeneSpin PCR geen line (Genespin proprietary formulation), is a specific PCR products line focused on **users safety.**
Either 2X PCR Mastermixes GL or 5x PCR buffers GL contain an internal fluorescent stain for DNA detetion on Agarose gel directly after PCR amplification. This particular composition is able to avoid standard protocols for post- or pre- staining DNA on Agarose Gel with Ethidium Bromide (EtBr) or different dsDNA stains. The flouorescent used in **GeneSpin PCR geen line regents** has higher sensitivity than EtBr and has an easy, fast and robust staining procedure. Detection is possible by illuminating the Agarose Gel on a UV screen. Ames test II has shown a lower mutagenic potential compared to SYBR Green I and a much lower mutagenic potential than EtBr. Storage: protect GeneSpin GL reagents from light.

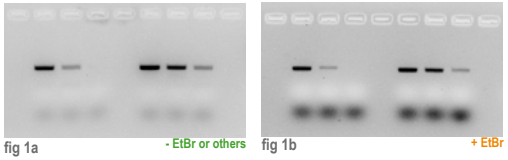


Fig. 1: Comparisons of the amplification efficiency of ***new 2X XtraRTL Master Mix GL (fig.1a) versus 2X XtraRTL Master Mix (fig.1b)*** were performed using serial dilutions (1:1, 1:10, 1:100) of rattus cDNA and specific primers corresponding to beta-actin. New ***2X XtraRTL Master Mix GL*** shows the same efficiency in amplifying the beta-actin region than ***2X XtraRTL Master Mix*** . Detection of ***2X XtraRTL Master Mix GL*** PCR product is performed without post- or pre-staining by illuminating the agarose gel (3%) on a UV screen (fig 1a).

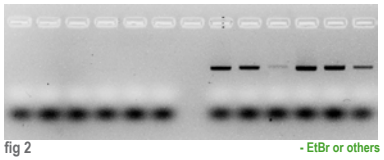


Fig. 2: Detection of ***2X XtraRTL Master Mix GL*** PCR product versus ***2X XtraRTL Master Mix*** PCR product is performed without post- or pre-staining on 3% agarose gel (fig 2) by illuminating the agarose gel on a UV screen. Only ***2X XtraRTL Master Mix GL*** PCR product is visible on the agarose gel.Both Mastermixes are visible on 3% agarose gel after pre- or post-staining with EtBr (data not shown).The amplification was performed using serial dilutions (1:1, 1:10, 1:100) of two different U2OS human cells INPUT DNA and specific primers corresponding to a centromeric region (SatCen11).

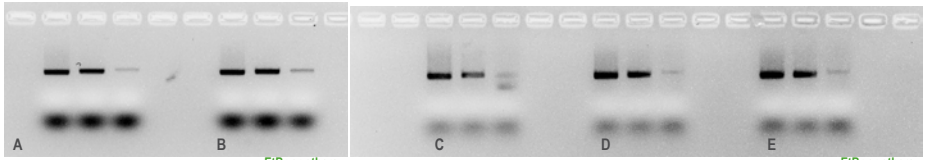


Fig. 3: Detection of ***GeneSpin PCR green line products*** on 3% agarose gel (fig 3) by illuminating the agarose gel on a UV screen without post- or pre-staining. The PCR amplification was performed using serial dilutions (1:1, 1:10, 1:100) of U2OS human cells INPUT DNA and specific primers corresponding to SON region. ***2X XtraRTL Master Mix GL (fig. 3.a), Xtra Taq (5U/ul) + 5X Xtra RTL Buffer GL (fig. 3.b), GS Taq Pol +10X PCR Buffer (fig. 3.c), 2X XtraWhite Master Mix GL (fig. 3.d), Xtra Taq (5U/ul) + 5X Xtra White Buffer GL (fig. 3.e).***

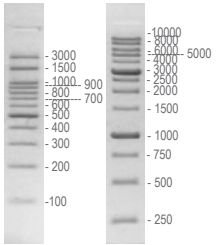


Fig. 4: ***GeneSpin 100bp GL*** (fig 4.a) ***and 1kb GL ladders*** (fig 4.b) were optimized for direct loading onto unstained agarose gels.
The ladders provide highest level of convenience during the routine handling and avoid commonly used gel staining procedures with ethidium bromide or SYBR Green I.

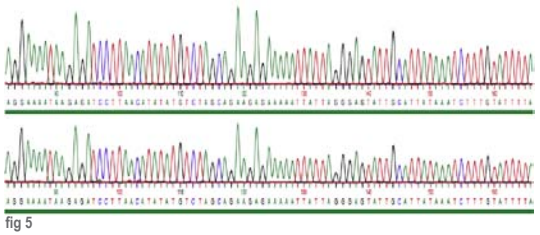
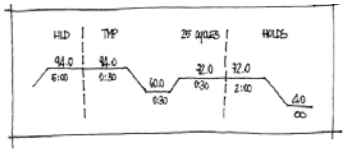


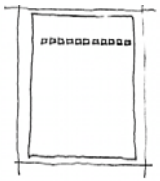
Fig. 5: Sequence analysis from PCR products of both ***2X XtraRTL Master Mix*** (up) and ***2X XtraRTL Master Mix GL*** (down).

1. PCR* Sample Preparation

2. Run PCR*



3. Run Agarose Gel



4. Check under UV ligh

use UV light to detect signal

without add Gel Stain (NO EtBr or others)

ORDERING Information

CAT#: STS-XMMixW GL1000 **2X XtraWhite Master Mix GL** (1000 reactions - 50ul) - 25ml
CAT#: STS-XMMixW GL200 **2X XtraWhite Master Mix** GL (200 reactions - 50ul) - 5ml
CAT#: STS-XMMixRTL GL1000 **2X XtraRTL Master Mix GL** (1000 reactions - 50ul) - 25ml
CAT#: STS-XMMixRTL GL200 **2X XtraRTL Master Mix GL** (200 reactions - 50ul) - 5ml

CAT#: STS-HXMMixW GL1000 **2X Hot StartXtraWhite Master Mix GL** (1000 reactions - 50ul) - 25ml
CAT#: STS-HXMMixW GL200 **2X Hot StartXtraWhite Master Mix** GL (200 reactions - 50ul) - 5ml
CAT#: STS-HXMMixRTL GL1000 **2X Hot StartXtraRTL Master Mix GL** (1000 reactions - 50ul) - 25ml
CAT#: STS-HXMMixRTL GL200 **2X Hot StartXtraRTL Master Mix GL** (200 reactions - 50ul) - 5ml

CAT#: XSTS-T5XRTL GL1000 **XtraTaq Pol with 5X XtraRTL GL Buffer** (1000U)
CAT#: XSTS-T5XRTL GL250 **XtraTaq Pol with 5X XtraRTL GL Buffer** (250U)
CAT#: XSTS-T5XW GL1000 **XtraTaq Pol with 5X XtraWhite GL Buffer** (1000U)
CAT#: XSTS-T5XW GL250 **XtraTaq Pol with 5X XtraWhite GL Buffer** (250U)

CAT#: STS-T1000 GL **Taq Pol with 10X Reaction Buffer GL** (1000U)
CAT#: STS-T250 GL **Taq Pol with 10X Reaction Buffer GL** (250U)

CAT#: STS-1Kb GL **DNA Ladder GL 1Kb**
CAT#: STS-100bp GL **DNA Ladder GL 100bp**

*For research only, not for resale

**The PCR process, which is the subject of European Pat. Nos. 201,184 and 200,362 owned by Hoffmann-La Roche*, is covered by patents issued and applicable in certain countries. GeneSpin does not encourage or support the unauthorized or unlicensed use of the PCR process. Use of this product is recommended for persons that either have a license to perform PCR or are not required to obtain a license.
* The above primary European Pat. Nos. 201,184 and 200,362 expired on March 28, 2006.
In the U.S., the patents covering the foundational PCR process expired on March 29, 2005.

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