Check the product label for actual catalog number, lot and expiry date.

ALLin™ HS Red Taq Mastermix, 2X

CAT.#	SIZE	COMPONENTS	COMPONENT COMPOSITION
HSM0301	200 r of 50 µl	5 x 1 ml - ALLin™ HS Red Taq Mastermix, 2X 5 x 1 ml - PCR Water	1X mastermix contains 0.25 mM dNTPs, 3 mM $MgCl_2$, enhancers, stabilizers, red electrophoresis tracking dye and density reagents for gel loading
HSM0305	1000 r of 50 µl	25 x 1 ml - ALLin™ HS Red Taq Mastermix, 2X 25 x 1 ml - PCR Water	1X mastermix contains 0.25 mM dNTPs, 3 mM $MgCl_2$, enhancers, stabilizers, red electrophoresis tracking dye and density reagents for gel loading
Storage	*In the dark at -20°C.*		

APPLICATIONS

- Hot-start PCR up to 6 kb with a direct gel loading option
- Crude sample PCR
- Low copy target detection
- Amplification of complex (GC/AT rich) templates
- Fast PCR
- TA cloning
- Multiplex hot-start PCR

BENEFITS

- Small molecular inhibition hot-start technology combined with advanced buffer - a synergy providing advantages over classical hot- start Taq Polymerases
- Outperforming sensitivity & specificity - low copy number target detection and no background
- Higher yields under standard and fast cycling
- Increased sensitivity and success in amplification of longer templates (6 kb), robust amplification of GC rich templates
- Premixed with the red dye and density reagents for direct loading on the gels after the PCR

PRODUCT DETAILS

highQu ALLin™ Hot Start Taq DNA Polymerase is the superior sensitive enzyme. The activity at room temperature is blocked by small molecular inhibitor. Enzyme becomes active only after heating what allows for highly specific and extremely sensitive amplification, no primer dimer formation and no background.
In combination with the optimized ALLin™ buffer enzyme provides higher success rates in demanding PCR applications like amplification of crude, complex or longer templates and fast cycling.
ALLin™ Hot Start Taq DNA Polymerase has the same PCR accuracy like Taq DNA Polymerase, and produces A-tailed products suitable for ligating into TA cloning vectors.

The convenience of ALLin™ Hot Start Taq DNA Polymerase is maximized by the use of 2X Mastermix providing the additional advantage of reduced pipetting and minimized errors.
ALLin™ HS Red Taq Mastermix, 2X is premixed with red dye and density reagents for direct loading on the gels after the PCR.
In a 2% agarose TAE gel the dye migrates with~350 bp DNA, in 1% agarose TAE gel with ~ 600 bp DNA fragments.
The mastermix is even supplied with PCR water, and the only thing to add is the template with primers.
ALLin™ HS Red Taq Mastermix, 2X is also a key component in highQu SampleIN™ Direct PCR Kit (DPK0101/5), ensuring outstanding PCR results with crude samples.

PROTOCOL

- Take typical measures to prevent PCR cross over contamination, keep your bench clean, wear gloves, use sterile tubes and filter pipet tips.
- Include a no-template control and positive control in parallel.
- Thaw and keep reagents on ice. Mix well before use.
- The longer the amplicon, the longer the extension time: Use 15 sec/kb extension.
- Use 90 sec extension for multiplexing.
- Run an annealing temperature gradient from 55°C to 65°C to choose the best specificity conditions. Do not use fast cycling for multiplexing.
- ALLin™ HS Red Taq Mastermix, 2X is premixed with red dye and density reagents for direct loading on the gels after the PCR. In a 2% agarose TAE gel the dye migrates with~350 bp DNA, in 1% agarose TAE gel with ~ 600 bp DNA fragments.

✓ Prepare a 50 µl reaction:

Rev. & For. Primers	0.1-0.4 µM final each (≤ 2 µl of 10 µM)
cDNA Template *or* gDNA Template	<100 ng *or* 5-500 ng
PCR Water	to 25 µl
ALLin™ HS Red Taq Mastermix, 2X	25 µl

✓ Mix gently, avoid bubbles.
✓ Place into the instrument set like:

Initial denaturation	1 cycle: 95°C – 1- 2 min
Denaturation	40 cycles: 95°C - 15 sec
Annealing	40 cycles: 55-65°C – 15 sec
Extension	40 cycles: 72°C – 1- 90 sec (15 sec/kb)

✓ Load probes on the agarose gel. The red loading dye is included in the mastermix.
✓ Store probes for short time on ice, for long at -20°C.

IN VITRO RESEARCH USE ONLY

ORDERING
T: +48 535 774 222
orders@eproscience.com

TECHNICAL SUPPORT
T: +48 535 774 222
eproscience@eproscience.com