RockStart Cat#: Rock100

Amount: 1 ml RockStart Buffer, 1 ml TAB Control buffer, 1 ml 35 mM MgCl2
(sufficient for 100 50ul reactions)
Shipping conditions: Ambient **Storage conditions:** 4°C
Expiration: On tube labels

PRODUCT DESCRIPTION:
RockStart PCR Buffer is a patented hot-start system that provides a hot start for the enzyme of your choice. The buffer precipitates magnesium during reaction set-up. Upon normal cycling, the magnesium is freed. No initial soak at 95 degrees is necessary. The system is effective with all DNA polymerases tested.

10X RockStart Buffer composition is: 500 mM Tris-base, 50 mM H3PO4, 160 mM ammonium sulfate, and 0.5% Brij. pH is 9.
10X TAB Control Buffer composition is: 500 mM Tris-Cl, 160 mM ammonium sulfate, and 1% Brij. pH is 9.

SUGGESTED PROCEDURE for a 50ml reaction:
1. Add 5 ul 10x Rock Start buffer to reaction tube (or 10X TAB Control buffer for a cold-start control reaction)
2. Add 5 ul 35 mM MgCl2
3. Wait at least 15 minutes.
4. Ice set-up is not strictly required but is recommended
5. Add 40 ul mix of everything else for your reaction.
6. Start cycling the PCR reaction. The magnesium will be freed within the first few cycles. No initial soak at 95 degrees is necessary.

Note: Do not attempt to make a master mix of RockStart and Magnesium Chloride. Once the Magnesium precipitate forms, it is not possible to accurately aliquot it to an array of tubes. Therefore each reaction tube must receive the RockStart and Magnesium individually.

QUALITY CONTROL:
Each lot of RockStart buffer is tested for its ability to provide a hot-start with one or more human or bacterial targets known to exhibit wrong bands, or compromised products under normal-start conditions. Please inquire for details.

Please visit us on the web at www.klentaq.com for troubleshooting and detailed protocols.

REFERENCES:
Barnes W.M. and Rowlyk K.R. Magnesium precipitate hot start method for PCR.
Mol Cell Probes. 2002 Jun;16(3):167-71.