

★ Storage

Store at -20°C

✎ Contents

- Product Manual
- 5M Betaine Solution, PCR Certified

ALL PRODUCTS SOLD BY GenDEPOT ARE INTENDED FOR RESEARCH USE ONLY UNLESS OTHERWISE INDICATED. THIS PRODUCT IS NOT INTENDED FOR DIAGNOSTIC OR DRUG PURPOSE

★ Shipping Condition

Ship with dry ice

★ Introduction

The performance of Betaine Enhancer Solution is superior compared to standard enhancers such as formamide, DMSO, TMAC, BSA and non-ionic detergents because of the following effects: Betaine binds preferentially to AT rich sequences in the major groove, thereby stabilizing AT rich regions of the DNA. Because AT forms 2 hydrogen bonds and GC forms 3, the bonding of AT is less stable than the one of GC. As a consequence of the stabilizing effect of Betaine on AT bonding, the stability of AT bonding and GC bonding is brought close to an equal level. At the same time, Betaine has a sequence independent destabilizing effect on all DNA. The T_m of AT rich and GC rich sequences are equalized and the overall T_m is lowered. Furthermore, Betaine aids the process of thermostable polymerases and reduces pauses in polymerization caused by secondary structure that can induce the polymerase to disassociate from the DNA strand.

★ Recommended Concentration for PCR

The optimal betaine concentration is 100mM ~ 2 M.

★ Related GenDEPOT Products

| Product Name | Cat No |
|--|--------|
| amfiSure PCR Master Mix(2x) | P0311 |
| amfiSure Prime PCR Master Mix(2x) | P1311 |
| amfiSure Advanced PCR Master Mix(2x) | P2311 |
| amfiEco Taq DNA Polymerase | P0701 |
| amfiFusion High Fidelity PCR Maser Mix(2x) | P0342 |
| 50X TAE Buffer | T8050 |
| 5X TBE Buffer | T8051 |
| EtBr Stock Solution, 10mg/ml | E0205 |
| SafePinky DNA Gel Staining Solution(10,000X) | S1001 |
| iVDye 50bp DNA Ladder | V1001 |
| iVDye 100bp DNA Ladder | V1002 |
| iVDye 1Kb DNA Ladder | V1003 |
| iVDye 6X Gel Loading Dye | V1004 |
| 100bp PCR Ranger DNA Marker, 100bp-To-3Kb | D1108 |
| 1Kb PCR Ranger DNA Marker, 75bp-To-20Kb | D1109 |
| Water, PCR Certified | W0806 |