



Product Insert
BIO-X-ACT™ Short Mix

Research Use Only

Product:
BIO-X-ACT™ Short Mix

Catalogue numbers:
BIO-25025 100 reactions
BIO-25026 500 reactions

Description:

- **Developed for problematic templates requiring high-fidelity (up to 3kb)**

BIO-X-ACT™ Short Mix is a complete “ready to go” 2x reaction-mix which requires the consumer to add only water, template and primers to successfully carry out Polymerase assays on problematic templates. BIO-X-ACT™ Short Mix has all of the features of our BIO-X-ACT™ Short DNA Polymerase and is suited for DNA fragments up to 4kb.

The mix has been optimised for a wide variety of templates, however we do include a 50mM magnesium solution should any fine adjustments be required.

BIO-X-ACT™ Short Mix dramatically reduces the time needed to set up reactions, thereby reducing the risk of contamination. Greater reproducibility is ensured, by reducing the number of pipetting steps that can lead to pipetting errors.

All mixes have been tested for scalability, and the mix, (when used at 2x concentration) can be used in reaction volumes from 5µl upwards.

BIO-X-ACT™ Short Mix is suitable for genomic targets of up to 3kb or lambda targets of up to 5kb.

•**Cloning:** BIO-X-ACT™ Short mix leaves predominantly A¹ overhangs such that the primer extension product is suitable for effective integration into TA cloning vectors, even from difficult templates.

Extended Stability: The product was stored at +20 °C over a 5 week period and tested daily. No detectable loss of activity was evidenced.

Due to potential of microbiological contamination, +4°C storage should not exceed 4 weeks

Composition of supplied 2x BIO-X-ACT™ Short Mix

134mM Tris-HCl (pH 8.8 at 25°C)
32mM (NH₄)₂SO₄
4mM MgCl₂
2mM dNTP's
Stabiliser
BIO-X-ACT™ Short DNA Polymerase

Batch details:
Batch No: See vial

Storage Conditions:
2x BIO-X-ACT™ Short Mix can be stored for:
6 months at -20°C
2 weeks at 4°C

Shipping: At 4°C or -20°C
Repeated freeze/thaw should be avoided.

Directions for Use:

BIO-X-ACT™ Short Mix is designed with ease-of-use in mind.

| Reaction Conditions | |
|--|-------------|
| For a 50µl reaction | |
| BIO-X-ACT Short mix | 25µl |
| Template and Primers | as required |
| Water (ddH ₂ O) | up to 50µl |
| Denature: 94-97°C | |
| Extension: 72°C Allowing 30-45 seconds mins per KB | |
| This data is intended for use as a guide only; conditions will vary from reaction to reaction and may need optimisation. | |

An additional tube of 50mM MgCl₂ is provided should any fine adjustments be necessary. The table below shows the volume of MgCl₂ to add to achieve different final concentrations.

| Final MgCl ₂ Required | Volume of 50mM MgCl ₂ to add to a 50µl final reaction volume |
|----------------------------------|---|
| 2.0mM | 0µl |
| 2.5mM | 0.5µl |
| 3.0mM | 1µl |

BIO-X-ACT is a Trademark of Bioline

This product contains a declaration of analysis at the time of manufacture