DTI JadeAmp Max HiFid Taq premix

Instruction Manual for use

User Manual for DTI JadeAmp Max HiFid Taq premix

Catalogue number: DT0202.80, DT0202.320

Note: Applicable to all pack sizes

Manufactured by
DSS Takara Bio India Pvt Ltd
A-5 Mohan Co-operative, Industrial Estate,
Mathura Road, New Delhi, Delhi 110044

1) Product Description:

DTI JadeAmp Max HiFid Taq premix is a 2X premix composed of an optimized buffer, PCR enzyme, dNTP mixture, gel loading dye (green),and a density reagent. The vivid green dye separates into blue and yellow dye fronts when the PCR product is run on an agarose gel. The master mix format greatly simplifies workflows and sample handling; add primers, template, and water and begin PCR. DTI JadeAmp Max HiFid Taq premix also allows amplification of long products. It is possible to amplify 15kb genomic DNA fragments.

2) Storage :

-20℃ for long-term storage. 4℃ for short-term storage (up to 3 months).
If used frequently, store at 4℃; repeated freezing and thawing will decrease its activity. Gently mix well before use and centrifuge briefly.

3) Applications :

- Routine PCR (e.g., genotyping)
- Colony PCR
- Plasmid insert verification.

4) Quality Control Data

Please see the Certificate of Analysis (CoA) for each lot.

5) Components (25 µl per reaction)

Components	Cat# DT0202.80 (80 rxn)	Cat# DT0202.320 (320 rxn)
DTI JadeAmp Max HiFid Taq premix	1 ml	1 ml x 4
dH2O	1 ml	1 ml x 4

6) Materials required but not provided

Reagents: PCR primers, sterile purified water, template
Equipment: Thermal cycler (DTI FabSpeed thermal cycler, model# TCST-9622)
Consumables: PCR tubes, Micropipettes and tips

7) Protocol

General Reaction Composition for PCR :

Reagent	Volume	Volume
DTI JadeAmp Max HiFid Taq premix (2X Premix)	12.5 µl	25 µl
Template	< 500 ng	< 500 ng
Forward Primer	0.1 µM (final conc.)	0.2 µM (final conc.)
Reverse Primer	0.1 µM (final conc.)	0.2 µM (final conc.)
dH2O	up to 25 µl	up to 50 µl
Total	25 µl	50 µl

8) Recommended PCR Conditions :

3 Step PCR (products up to 6 kb)

98℃	10 sec	30 cycles
60℃*	30 sec	
72℃	1 min/kb	

2 Step PCR (products over 6 kb)

98℃	10 sec	30 cycles
68℃	1 min/kb	

* Primers should have Tm > 60℃ for optimal results. The following formula is commonly used for estimating the primer Tm:

Tm (℃) = [(the number of A and T) x 2] + [(the number of G and C) x 4] - 5

n : the number of adenine (A), thymidine (T), guanidine (G), or cytosine (C) bases in primer

NOTE: Denaturation conditions vary depending on the thermal cycler and tubes used for PCR. We recommend denaturing for 5 - 10 sec at 98℃, or 20 - 30 sec at 94℃.

9) PCR product :

Most PCR products amplified with this product have one A added at 3'-termini. Thus, the PCR product can be used directly for cloning into a T-vector. Additionally, it is possible to clone the product in blunt-end vectors after blunting and phosphorylation.

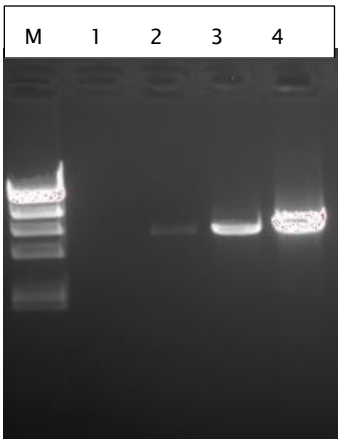
10) Dye marker migration during Electrophoresis :

If 5 µl of the PCR sample is used for electrophoresis on a 1% DTI agarose routine (cat# DT1701.500) gel, the blue dye front migrates near 3 - 5 kb and the yellow dye front migrates below 50 bp. The absorption maxima for the dyes are ~ 260 nm and 420 nm, respectively. The dyes may be removed by excising and purifying DNA from the gel or extracting DNA with NucleoSpin Gel and PCR Clean-up (Cat. #740609.50/.250), if necessary.

11) Experimental sample:

In the below study, the DTI JadeAmp Max HiFid Taq premix is capable of amplifying 6 kb fragment from 1ng, 10 ng and 100 ng of human genomic DNA as template. The protocol used for the assay and the results are as follows:

98 C	10 sec	30 Cycles
60 C	30 sec	
72 C	6 min	



Lane M: λ Hind III digest marker
Lane 1: Test – 100 pg
Lane 2: Test – 1 ng
Lane 3: Test - 10 ng
Lane 4: Test - 100 ng

Figure 1: Gel electrophoresis image of PCR

Visit https://store.dsstakarabio.com/ for more detailed product information

For more information contact directly below;
Address: DSS Takara Bio India Pvt Ltd, A-5 Mohan Co-operative, Industrial Estate, Mathura Road, New Delhi, Delhi 110044

Email: enquiries@dsstakarabio.com
Toll-Free number 1800-212-4922

Description of Symbol Used:

REF Catalogue number

LOT Batch Code

Date of Manufacturing

Use-by-date

Contains sufficient for <n> tests