DTI JadeAmp FabTaq Premix

Instruction Manual for use

User Manual for DTI JadeAmp FabTaq premix

Catalogue number: DT0201.80, DT0201.320

Note: Applicable to all pack sizes

Manufactured by
DSS Takara Bio India Pvt Ltd
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1) Product Description:

DTI JadeAmp FabTaq premix is a 2X premix composed of a DNA polymerase, optimized reaction buffer, dNTPs, and a density reagent. The premix also contains a vivid green dye that will separate into blue and yellow dye fronts when run on an agarose gel. The premix simplifies PCR assembly; simply add primers, template, and water and start the reaction. After PCR, the reaction mixture can be applied directly to a gel for analysis.

2) Storage: -20 ℃ (or 4 ℃ for 3 months)

If the premix will be used frequently, store at 4℃; repeated freezing and thawing will decrease activity. Mix the premix gently and briefly centrifuge before use.

3) Applications:

DNA amplification by PCR
Colony PCR
PCR screening

4) Quality Control Data

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

5) Components (25 µl per reaction)

Components	Cat# DT0201.80 (80 reactions)	Cat# DT0201.320 (320 reactions)
DTI JadeAmp FabTaq premix	1 ml	1 ml x 4
dH2O	1 ml	1 ml x 4

6) Materials required but not provided

Reagents: dNTP, 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 FabTaq 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) Suggested PCR Conditions:

3 Step (up to 6 kb)

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

2 Step (over 6 kb)

98℃	10 sec	30 cycles
68℃	1 min/kb	

* For optimal results, primers should have a Tm >60℃. The following formula is commonly used for estimating the Tm of the primers.

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. Denaturation for 5 - 10 sec at 98℃ or 20 - 30 sec at 94℃ is recommended.

9) PCR product:

PCR products generated with DTI JadeAmp FabTaq premix have a single A at the 3'-termini, and PCR products can be directly cloned into a T-vector. It is also possible to clone products into blunt-end vectors after blunting and phosphorylation of the ends.

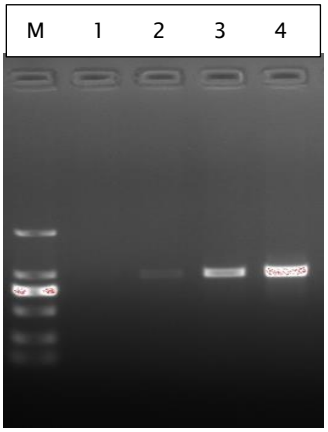
10) Dye marker migration:

When 5 µl of the reaction mixture 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 is below 50 bp.

11) Experimental sample:

In the below study, the DTI JadeAmp FabTaq premix is capable of amplifying 1 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	1 min	



Lane M: 1 kb DNA marker
Lane 1: Test – 100 pg
Lane 2: Test– 1 ng
Lane 3: Control - 10 ng
Lane 4: Control - 100 ng

Figure 1: Gel electrophoresis image of PCR

Visit https://store.dsstakarabio.com/pages/dti-jadeamp-fabtaq-premix for more detailed product information

For more information contact directly below;
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Description of Symbol Used:

REF Catalogue number

LOT Batch Code

Date of Manufacturing

Use-by-date

Contains sufficient for <n> tests