

PRODUCT INFORMATION

Thermo Scientific 10X FastDigest Green Buffer

Pub. No. MAN0015727

Rev. Date 24 August 2018 (Rev. A.00)

#B72

Lot: __

Expiry Date: __

Store at -25 °C to -15 °C

Components	#B72
10X FastDigest Green Buffer	5 x 1 mL

BSA included

For Research Use Only. Not for use in diagnostic procedures.

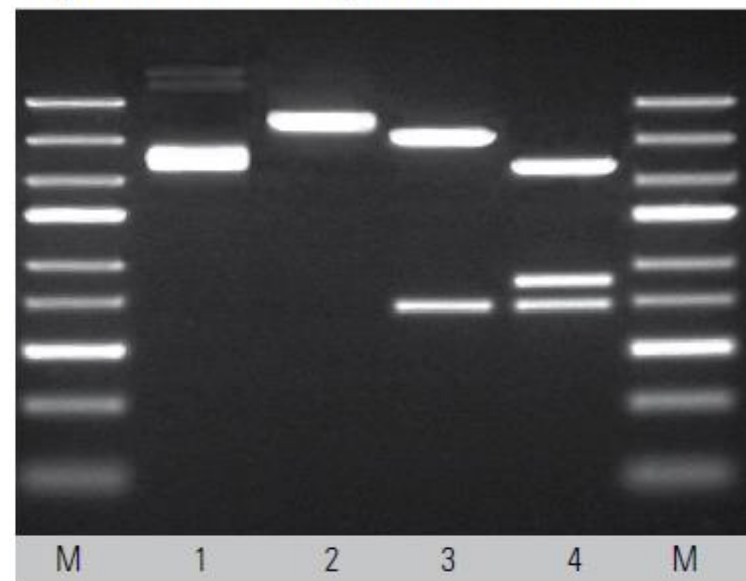
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Description

The 10X Thermo Scientific™ FastDigest™ Green Buffer is a proprietary restriction digestion reaction buffer. All FastDigest restriction enzymes have 100% activity in this buffer which enables:

- Double and multiple digestion in universal buffer for any combination of enzymes
- Eliminates sequential digestions and buffer changes

Five minute single, double and triple digestions in FastDigest Green Buffer



1: Plasmid - undigested control
2: Plasmid - digested with FastDigest EcoRI
3: Plasmid - double digested with FastDigest EcoRI and FastDigest KpnI
4: Plasmid - triple digested with FastDigest EcoRI, FastDigest KpnI and FastDigest SmaI
M: Marker - Thermo Scientific™ GeneRuler™ Express Ladder (#SM1553)

10X Thermo Scientific™ FastDigest™ Green Buffer is compatible with downstream applications:

- 100% activity of DNA modifying enzymes in FastDigest and FastDigest Green Buffer
- Enzymes for downstream applications can be added directly to the restriction digestion reaction mixture
- No need for intermediated DNA purification steps

Activity of DNA/RNA modifying enzymes in FastDigest Green Buffer and FastDigest Buffer

DNA/RNA modifying enzyme	Activity in FastDigest Green Buffer/ FastDigest Buffer
DNA Polymerase I (#EP0041)	100%
Klenow Fragment (#EP0051)	100%
Klenow Fragment, exo ⁻ (#EP0421)	100%
T4 DNA Polymerase (#EP0061)	100%
T7 DNA Polymerase (#EP0081)	100%
T4 DNA Ligase* (#EL0011)	75-100%
Thermo Scientific™ FastAP™ Alkaline Phosphatase (#EF0651)	100%
T4 Polynucleotide Kinase (#EK0031)	100%

*0.5 mM ATP is required for T4 DNA Ligase activity.

Direct loading on gels

The FastDigest Green Buffer contains a density reagent along with blue and yellow tracking dyes that allow for direct loading of reaction mixtures on a gel. The blue dye migrates with 3-5 kb DNA fragments in a 1% agarose gel and has an excitation peak at 424 nm. The yellow dye migrates faster than 10 bp DNA fragments in a 1% agarose gel and has an excitation peak at 615 nm.



Reaction mixture containing Thermo Scientific™ FastDigest™ Green Buffer:

- 1: Loaded into gel well, before electrophoresis
2: Separated, after electrophoresis

Colorless version of the 10X FastDigest Green Buffer is also available - Thermo Scientific 10X FastDigest Buffer (#B64) and recommend for applications that require analysis of the digestion product by fluorescence excitation. The FastDigest Green and Colorless Buffers has the same performance in both DNA digestion and downstream applications.

Applications

- DNA digestion using FastDigest enzymes.
- Direct loading of reaction mixtures on a gel.

CERTIFICATE OF ANALYSIS

Functionally tested in DNA digestion with FastDigest enzymes.

Quality authorized by:



Jurgita Zilinskiene

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PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively *for research purposes and in vitro use only*. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

Please refer to www.thermofisher.com for Material Safety Data Sheet of the product.

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