DNA Degradase Plus[™]

Cat. Nos. E2020 (250 Units)

E2021(1,000 Units)

Storage: -20 °C

Highlights:

Description:



Product Information

Product Contents:

	Cat. No. E2020	Cat. No. E2021	Storage
DNA Degradase Plus™	250 units	1,000 units	-20°C
10X DNA Degradase™ Reaction Buffer (E2016-2)	1 ml	1 ml	-20°C

Storage: Store reagents at -20°C for up to 12 months. Avoid repeated freeze/thawing. Prolonged storage should be \leq -70 °C.

Enzyme Concentration: 5 units/µl

Unit Definition: One unit (1 U) is defined as the amount of enzyme required to degrade 1 μ g of λ DNA to individual nucleosides in a total reaction volume of 25 μ l for 1 hour at 37°C.

Reaction Conditions: DNA Degradase Plus[™] in 1X DNA Degradase[™] Reaction Buffer. Incubate reaction mixtures at 37°C for ≥1hour.

Inactivation: Heat-inactivate at 70°C for 20 minutes.

Standard Reaction Setup: The setup (below) is an example of a typical DNA Degradase PlusTM reaction in a 25 µl final volume. However, the volumes can be adjusted accordingly depending on experimental requirements.

- 2 µl DNA at 500 ng/µl
- 2.5 µl 10X DNA Degradase™ Reaction Buffer
- 1 µl DNA Degradase Plus™ (5 units/µl)
- 19.5 µl ddH₂O 25 µl Total Volume

Incubate at 37°C for 2 hours (see Note 1, below).

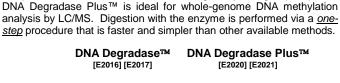
Notes:

1. Complete digestion of DNA.

For complete digestion of DNA (gDNA, plasmid, amplified DNA, etc.), reactions should be carried out at 37 °C for \geq 2 hours. Even though 1 unit of DNA Degradase PlusTM is sufficient to digest 1 µg of DNA down to individual nucleosides at 37 °C in 1 hour, we recommend "overdigesting" with 5-10 fold enzyme to ensure complete digestion of DNA.

2. Sample DNA purity

The digestion reaction can be sensitive to extraneous components from crude DNA preparations or DNA samples carried over from prior reactions. It is recommended that impure preparations of DNA be "cleaned" prior to manipulation (e.g., DNA Clean and Concentrator[™] from Zymo Research).

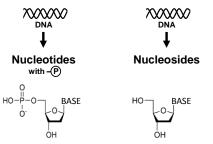


DNA Degradase Plus[™] from Zymo Research is a nuclease mix that *quickly* and *efficiently* degrades DNA to its individual <u>nucleoside</u>

components. Since nucleosides lack negatively charged phosphate,

Quick and simple procedure for generating single <u>nucleosides</u> from DNA for quantitative analysis via LC/MS. 1 hour, single-enzyme digest vs. conventional 6-16 hour

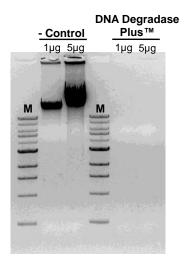
multi-step enzyme digestion protocols.



 Quantitation
 Thin layer chromatography
 LC/Mass Spectrometry

 Applications
 HPLC
 LC/Mass Spectrometry

DNA Degradase Plus™ degrades DNA to individual <u>nucleosides</u>. Absence of the charged phosphate group facilitates quantitation via LC/MS. For applications compatible with <u>nucleotides</u> (e.g.- TLC, HPLC, etc.) see DNA Degradase[™] (cat nos. E2016, E2017).



DNA Degradase PlusTM Efficiently Degrades DNA: 1 μ g, 5 μ g of λ DNA incubated with 1 μ l (5 U) of DNA Degradase PlusTM in 25 μ l reaction volume (see *Standard Reaction Setup*) and incubated at 37°C for 1 hour. "M" is a 1kb DNA ladder (Zymo Research).

DNA Degradase Plus[™]

Cat. Nos. E2020 (250 Units) E2021(1,000 Units)

Storage: -20 °C

Related Epigenetics Products:

Product Name	Size	Cat. No.
BISULFITE TREATMENT OF I	DNA	
	50 rxns.	D5001
EZ DNA Methylation™ Kit	200 rxns.	D5002
	2 x 96 rxns.	D5003
	2 x 96 rxns. 50 rxns.	D5004 D5005
EZ DNA Methylation-Gold™ Kit	200 rxns.	D5006
	2 x 96 rxns.	D5007
	2 x 96 rxns.	D5008
EZ DNA Methylation-Direct™ Kit	50 rxns. 200 rxns.	D5020 D5021
	200 mis. 2 x 96 rxns.	D5021 D5022
	2 x 96 rxns.	D5023
EZ DNA Methylation-Startup™ Kit	50 rxns.	D5024
EZ Bisulfite DNA Clean-up Kit™	50 preps.	D5025
	200 preps.	D5026
	2 x 96 preps.	D5027
METHYLATED/NON-METHYLATED DNA	2 x 96 preps.	D5028
	1	DE010
Universal Methylated DNA Standard	1 set	D5010
Universal Methylated Human DNA Standard	1 set	D5011
Universal Methylated Mouse DNA Standard	1 set	D5012
Human Methylated and Non-methylated DNA Set	1 set	D5014
Human HCT116 DKO Non-methylated DNA Standard	5 µg	D5014-1
Human HCT116 DKO Methylated DNA Standard	5 µg	D5014-2
Bisulfite Converted Universal Methylated Human DNA Standard	1 set	D5015
E. coli Non-methylated Genomic DNA	5 µg	D5016
AMPLIFICATION OF BISULFITE CONV	ERTED DNA	
Zymo <i>Taq</i> ™ DNA Polymerase	50 rxns. 200 rxns.	E2001 E2002
Zymo <i>Taq</i> ™ PreMix (2X concentrated)	50 rxns. 200 rxns.	E2003 E2004
ANTIBODIES & IMMUNOPRECIPI	TATION	
Methylated-DNA IP Kit	10 preps.	D5101
ChIP DNA Clean & Concentrator™	50 preps. 50 preps.	D5201 D5205
Anti-5-Methylcytosine Monoclonal	50 µg	A3001-50
Antibody (clone 10G4)	200 µg	A3001-200
METHYLTRANSFERASES		
		E2010
Cro Mathulaga (M Caal)	200 U	
CpG Methylase (M.SssI)	200 U 400 U	E2011
CpG Methylase (M.Sssl) GpC Methylase (M.CviPI)	400 U 200 U	E2014
GpC Methylase (M.CviPI)	400 U	
GpC Methylase (M.CviPI) DNA FRAGMENTATION	400 U 200 U	E2014
GpC Methylase (M.CviPI)	400 U 200 U 1000 U	E2014 E2015
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase™	400 U 200 U 1000 U 500 U 2000 U 250 U	E2014 E2015 E2016 E2017 E2020
GpC Methylase (M.CviPI) DNA FRAGMENTATION	400 U 200 U 1000 U 500 U 2000 U 250 U 1000 U	E2014 E2015 E2016 E2017 E2020 E2021
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase ™ DNA Degradase Plus ™	400 U 200 U 1000 U 500 U 2000 U 250 U 1000 U 50 U	E2014 E2015 E2016 E2017 E2020 E2021 E2018-50
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase™	400 U 200 U 1000 U 500 U 2000 U 250 U 1000 U	E2014 E2015 E2016 E2017 E2020 E2021
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase ™ DNA Degradase Plus ™	400 U 200 U 1000 U 500 U 2000 U 250 U 1000 U 50 U 200 U	E2014 E2015 E2016 E2017 E2020 E2021 E2018-50 E2018-200
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase ™ DNA Degradase Plus ™	400 U 200 U 1000 U 500 U 2000 U 250 U 1000 U 50 U 200 U 50 U & DCC™ 200 U & DCC™	E2014 E2015 E2016 E2017 E2020 E2021 E2018-50 E2018-50 E2019-50
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase ™ DNA Degradase Plus™ DNA Shearase™	400 U 200 U 1000 U 500 U 2000 U 250 U 1000 U 50 U 200 U 50 U & DCC™ 200 U & DCC™	E2014 E2015 E2016 E2017 E2020 E2021 E2018-50 E2018-50 E2019-50
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase ™ DNA Degradase Plus ™ DNA Shearase ™ NUCLEOSOME MAPPING	400 U 200 U 1000 U 2000 U 250 U 250 U 1000 U 50 U 200 U 50 U & DCC™ 200 U & DCC™ 200 J & DCC™	E2014 E2015 E2016 E2017 E2020 E2021 E2018-50 E2018-50 E2019-50 E2019-200
GpC Methylase (M.CviPI) DNA FRAGMENTATION DNA Degradase ™ DNA Degradase Plus ™ DNA Shearase ™ NUCLEOSOME MAPPING EZ Nucleosomal DNA Prep Kit	400 U 200 U 1000 U 2000 U 250 U 250 U 1000 U 50 U 200 U 50 U & DCC™ 200 U & DCC™ 200 J & DCC™	E2014 E2015 E2016 E2017 E2020 E2021 E2018-50 E2018-50 E2019-50 E2019-200
GpC Methylase (M.CviPI) DNA Degradase ™ DNA Degradase Plus ™ DNA Shearase ™ NUCLEOSOME MAPPING EZ Nucleosomal DNA Prep Kit 5-HYDROXYMETHYLCYTOS	400 U 200 U 1000 U 500 U 250 U 1000 U 50 U 200 U 50 U & DCC™ 200 U & DCC™ 200 preps INE	E2014 E2015 E2016 E2017 E2020 E2021 E2018-50 E2018-200 E2019-200 D5220



Product Information

Trademarks and Disclaimers:

™ Trademarks of Zymo Research Corporation.

This product is for research use only and should only be used by trained professionals. It is not intended for use in diagnostic procedures. Wear protective gloves and eye protection. Follow the safety guidelines and rules enacted by your research institution or facility.

Integrity of kit components is guaranteed for up to one year from date of purchase. Reagents are routinely tested on a lot-to-lot basis to ensure they provide maximal performance and reliability.

For Technical Assistance, please contact 1-888-882-9682 or E-mail tech@zymoresearch.com. Satisfaction of all Zymo Research products is guaranteed. If you are not satisfied with this product please call 1-888-882-9682.

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