



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 



ZYMO RESEARCH



Human Matched DNA Set

Organ-specific human genomic DNA standards for detection and quantification of 5-mC and 5-hmC

Highlights

- Matched set of human genomic DNA from brain and spleen originating from a single individual.
- Precisely quantified levels of 5-methylcytosine (5-mC) and 5-hydroxymethylcytosine (5-hmC) via mass spectrometry (LC/MS).
- Useful controls for detection methods of 5-mC or 5-hmC.

Catalog Numbers:

D5018, D5018-1, D5018-2



Scan with your smart-phone camera to view the online protocol/video.



tech@zymoresearch.com



www.zymoresearch.com



Toll Free: (888) 882-9682

Table of Contents

| | |
|-----------------------------------|-----------|
| Product Contents | 01 |
| Specifications..... | 01 |
| Product Description..... | 02 |
| Recommended Usage..... | 03 |
| Protocol | 03 |
| Ordering Information | 04 |
| Guarantee | 05 |

Product Contents

| Human Matched DNA Set | D5018 | D5018-1 | D5018-2 | Storage Temp. |
|-----------------------|------------|------------|------------|---------------|
| Human Brain DNA | 5 µg/20 µl | 5 µg/20 µl | - | -20°C |
| Human Spleen DNA | 5 µg/20 µl | - | 5 µg/20 µl | -20°C |

Specifications

- **Source** – Human male brain and spleen tissue.
- **Concentration** – 250 ng/µl in modified TE buffer (10mM Tris-HCl; 0.1mM EDTA; pH 8.0).

Product Description

The **Human Matched DNA Set** is a set of organ specific human genomic DNAs originating from a single individual. This set is an ideal control for detection and/or quantification methods against 5-methylcytosine (5-mC) and 5-hydroxymethylcytosine (5-hmC) as both modified cytosines are present at physiologically relevant levels and loci¹. The levels of 5-methylcytosine and 5-hydroxymethylcytosine within the **Human Matched DNA Set** have been quantified and are listed below.

| | Brain | Spleen |
|--------------|--------------|---------------|
| 5-mC | 6.93 % | 6.75 % |
| 5-hmC | 1.89 % | 0.18 % |

Table 1. LC/MS Quantification. 500 ng of brain and spleen genomic DNA from the Human Matched DNA Set were digested with **DNA Degradase Plus (E2020)** for 1 hour. The processed DNA was subsequently run on LC/MS for precise global quantification of 5-mC and 5-hmC percentages.

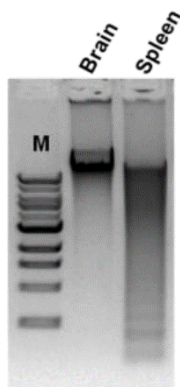


Figure 1. Human Matched Genomic DNA Set. 1 µg of brain and spleen human genomic DNA were resolved in a 0.8% agarose gel. “M” denotes the **ZR 1kb DNA Marker (M5003)**.

Note: Some degradation of genomic DNA originating from organs may be unavoidable due to processing time of tissue post-mortem.

¹For human genomic DNA with extremely low levels (<0.03%) of 5-hydroxymethylcytosine, please refer to **Human HCT116 DKO Non-methylated DNA (D5014-1)**.

Recommended Usage

The **Human Matched DNA Set** can be used as controls for bisulfite conversion and downstream analyses such as bisulfite PCR, methylation sequencing applications, methylation assay calibration, and more.

Protocol

For best results, it's important to ensure the DNA is completely homogenous and fully in solution before quantification and usage. The following steps are recommended before quantification and usage¹:

1. Bring the standards to room temperature.
2. Vortex the standards for 10-15 seconds, briefly spin down for 5-10 seconds.
3. Repeat Step 2 twice, for three times total.
4. Proceed with quantification or usage.

¹Standards are quantified using NanoDrop® measurements. If using other methods, variation may be observed.

Ordering Information

| Product Description | Catalog No. | Size |
|---|----------------|-----------------------|
| Human Methylated & Non-methylated DNA Set | D5014 | 5 µg/20 µl |
| Human HCT116 DKO Non-Methylated DNA | D5014-1 | 5 µg/20 µl |
| Human HCT116 DKO Methylated DNA | D5014-2 | 5 µg/20 µl |
| Bisulfite-Converted Universal Methylated Human DNA Standard | D5015 | 1 µg/50 µl |
| ZymoTaq™ qPCR Premix | E2054 E2055 | 50 Rxns. 200 Rxns. |
| ZymoTaq™ Premix | E2003 E2004 | 50 Rxns 200 Rxns. |
| EZ DNA Methylation-Lightning™ Kit | D5030 D5031 | 50 Rxns 200 Rxns. |
| EZ DNA Methylation-Direct™ Kit | D5020 D5021 | 50 Rxns 200 Rxns. |
| EZ DNA Methylation™ Kit | D5001 D5002 | 50 Rxns 200 Rxns. |
| EZ DNA Methylation-Gold™ Kit | D5005 D5006 | 50 Rxns 200 Rxns. |



**100% satisfaction guarantee on all Zymo Research products,
or your money back.**

Zymo Research is committed to simplifying your research with quality products and services. If you are dissatisfied with this product for any reason, please call 1(888) 882-9682.

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 the highest performance and reliability.

This product is for research use only and should only be used by trained professionals. It is not for use in diagnostic procedures. Some reagents included with this kit are irritants. Wear protective gloves and eye protection. Follow the safety guidelines and rules enacted by your research institution or facility.

™ Trademarks of Zymo Research Corporation

NanoDrop® is a registered trademark of Thermo Fisher Scientific, Inc.



ZYMO RESEARCH

The **BEAUTY** of **SCIENCE** is to Make Things **SIMPLE**[®]



tech@zymoresearch.com



www.zymoresearch.com



Toll Free: (888) 882-9682