

Human Matched DNA Set

Cat. No. D5018

Storage: -20 °C



ZYMO RESEARCH

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Product Information

Highlights:

- Matched set of human genomic DNA from brain and spleen originating from a single individual
- Precisely quantified levels of 5-methylcytosine & 5-hydroxymethylcytosine via LC/MS
- Useful control for detection methods of 5-methylcytosine or 5-hydroxymethylcytosine

Product Contents:

| | Cat. # | Quantity | Storage Temp. |
|-------------------------|---------|--------------|---------------|
| Human Brain DNA | D5018-1 | 5 µg / 20 µl | - 20°C |
| Human Spleen DNA | D5018-2 | 5 µg / 20 µl | - 20°C |

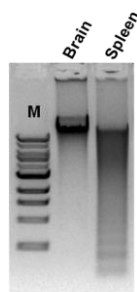
Description:

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 (^{5m}C) and 5-hydroxymethylcytosine (^{5hm}C) as both modified cytosines are present at physiologically relevant levels and loci. The levels of 5-hydroxymethylcytosine within the **Human Matched DNA Set** have been quantified and are listed below.

| | Brain | Spleen |
|------------------|--------|--------|
| ^{5m} C | 6.93 % | 6.75 % |
| ^{5hm} C | 1.89 % | 0.18 % |

LC/MS Quantification

500ng of brain and spleen gDNA from Human Matched DNA Set were digested with DNA Degradase Plus [Cat. No. E2020] for 1 hour. Processed DNA was subsequently run on LC/MS for precise global quantification of ^{5m}C and ^{5hm}C percentages.



Match Set Human Genomic DNA

1 µg of Brain and Spleen gDNA were resolved in a 0.8% agarose gel. "M" denotes 1 kb DNA ladder (Zymo Research Corp.).

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

****For human genomic DNA with extremely low levels (<0.03%) of 5-hydroxymethylcytosine, please refer to Human HCT116 DKO Non-methylated DNA (Zymo Research Corp., Cat. No. D5014-1).**

Product Specifications:

Source: Human male

Concentration: 250 ng/µl in modified TE buffer (10mM Tris-HCl; 0.1mM EDTA; pH 8.0)

Storage: ≤ -20 °C

Also Available:

| Product Name | Size | Cat. No. |
|---|------------------------|----------------|
| 5-HYDROXYMETHYLCYTOSINE | | |
| Quest 5-hmC Detection Kit™ | 25 Preps. 50 Preps. | D5410 D5411 |
| Quest 5-hmC Detection Kit™ - Lite | 25 Preps. 50 Preps. | D5415 D5416 |
| Human Matched DNA Set | 2 x 5 µg | D5018 |
| Mouse 5hmC & 5mC DNA Set | 4 x 5 µg | D5019 |
| 5-hmC Glucosyltransferase | 100 units 200 units | E2026 E2027 |
| 5-Hydroxymethyl dCTP [100mM] | 10 µmol | D1045 |
| 5-Methyl dCTP [10mM] | 1 µmol | D1035 |
| 5-Methylcytosine & 5-Hydroxymethylcytosine DNA Standard Set | 1 set | D5405 |
| BISULFITE TREATMENT OF DNA | | |
| EZ DNA Methylation-Direct™ Kit | 50 rxns. | D5020 |
| | 200 rxns. | D5021 |
| | 2 x 96 rxns. | D5022 |
| | 2 x 96 rxns. | D5023 |
| METHYLATED/NON-METHYLATED DNA STANDARDS | | |
| 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 CONVERTED DNA | | |
| Zymo Taq™ DNA Polymerase | 50 rxns. | E2001 |
| | 200 rxns. | E2002 |
| Zymo Taq™ PreMix (2X concentrated) | 50 rxns. | E2003 |
| | 200 rxns. | E2004 |
| ANTIBODIES & IMMUNOPRECIPITATION | | |
| Methylated-DNA IP Kit | 10 preps. | D5101 |
| ChIP DNA Clean & Concentrator™ | 50 preps. | D5201 |
| | 50 preps. | D5205 |
| Anti-5-Methylcytosine Monoclonal Antibody (clone 10G4) | 50 µg | A3001-50 |
| | 200 µg | A3001-200 |
| DNA FRAGMENTATION | | |
| DNA Degradase™ | 500 U | E2016 |
| | 2000 U | E2017 |
| DNA Degradase Plus™ | 250 U | E2020 |
| | 1000 U | E2021 |
| DNA Shearase™ | 50 U | E2018-50 |
| | 200 U | E2018-200 |
| | 50 U & DCC™ | E2019-50 |
| | 200 U & DCC™ | E2019-200 |
| NUCLEOSOME MAPPING | | |
| EZ Nucleosomal DNA Prep Kit | 20 preps | D5220 |

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This product is for research use only and should only be used by trained professionals. Wear protective gloves and eye protection. Follow the safety guidelines and rules enacted by your research institution or facility.

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