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Datasheet for ABIN2779420

## anti-MBD1 antibody (C-Term)

1 Image

1 Publication

### Overview

|                      |  |
|----------------------|--|
| Quantity:            | 100 µL   |
| Target:              | MBD1   |
| Binding Specificity: | C-Term   |
| Reactivity:          | Human, Rat, Dog, Rabbit, Cow, Guinea Pig, Horse, Mouse |
| Host:                | Rabbit   |
| Clonality:           | Polyclonal   |
| Conjugate:           | This MBD1 antibody is un-conjugated                    |
| Application:         | Western Blotting (WB)                                  |

### Product Details

|                       |  |
|-----------------------|--|
| Immunogen:            | The immunogen is a synthetic peptide directed towards the C terminal region of human MBD1                                      |
| Sequence:             | NKDDSASKLA PEEEAGGAGT PVITEIFSLG GTRFRDTAVW LPRSKDLKKP   |
| Predicted Reactivity: | Cow: 100%, Dog: 100%, Guinea Pig: 100%, Horse: 100%, Human: 100%, Mouse: 86%, Rabbit: 100%, Rat: 100%                          |
| Characteristics:      | This is a rabbit polyclonal antibody against MBD1. It was validated on Western Blot using a cell lysate as a positive control. |
| Purification:         | Affinity Purified  |

### Target Details

|         |      |
|---------|------|
| Target: | MBD1 |
|---------|------|

## Target Details

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Alternative Name: MBD1 ([MBD1 Products](#))

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Background: MBD1 belongs to a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MBD1 can also repress transcription from methylated gene promoters. Five transcript variants of the MBD1 are generated by alternative splicing resulting in protein isoforms that contain one MBD domain, two to three cysteine-rich (CXXC) domains, and some differences in the COOH terminus. All five transcript variants repress transcription from methylated promoters, in addition, variants with three CXXC domains also repress unmethylated promoter activity. DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. Five transcript variants of the MBD1 are generated by alternative splicing resulting in protein isoforms that contain one MBD domain, two to three cysteine-rich (CXXC) domains, and some differences in the COOH terminus. All five transcript variants repress transcription from methylated promoters, in addition, variants with three CXXC domains also repress unmethylated promoter activity. MBD1 and MBD2 map very close to each other on chromosome 18q21. DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. Five transcript variants of the MBD1 are generated by alternative splicing resulting in protein isoforms that contain one MBD domain, two to three cysteine-rich (CXXC) domains, and some differences in the COOH terminus. All five transcript variants repress transcription from methylated promoters, in addition, variants with three CXXC domains also repress unmethylated promoter activity. MBD1 and MBD2 map very close to each other on chromosome 18q21.

Alias Symbols: CXXC3, PCM1, RFT

Protein Interaction Partner: SUMO1, HTT, UBC, ECT2, APP, ATXN1L, TENM1, SUMO2, HIST1H3A, PCNA, ATF7IP2, ATF7IP, CHAF1A, SETDB1, PIAS1, STAT1, PRAM1, HDAC3, PIAS2, ZNF512B, Rnf2, CBX4, CBX5, HIPK3, SMAD9, OASL, SMAD5, SMAD3, SMAD7, SMAD1, SUV39H1,

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## Target Details

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|                   |   |
|-------------------|---|
|                   | Protein Size: 549                                     |
| Molecular Weight: | 60 kDa  |
| Gene ID:          | 4152  |
| NCBI Accession:   | <a href="#">NM_015844</a> , <a href="#">NP_056669</a> |

## Application Details

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|                    |  |
|--------------------|--|
| Application Notes: | Optimal working dilutions should be determined experimentally by the investigator. |
| Comment:           | Antigen size: 549 AA   |
| Restrictions:      | For Research Use only  |

## Handling

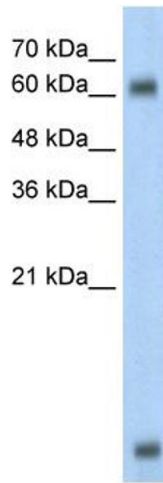
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|                    |   |
|--------------------|---|
| Format:            | Liquid  |
| Concentration:     | Lot specific  |
| Buffer:            | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % sucrose.                                     |
| Preservative:      | Sodium azide  |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.                  |
| Handling Advice:   | Avoid repeated freeze-thaw cycles.  |
| Storage:           | -20 °C  |
| Storage Comment:   | For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles. |

## Publications

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|                   |   |
|-------------------|---|
| Product cited in: | Nishimura, Mitne-Neto, Silva, Oliveira, Vainzof, Zatz: "A novel locus for late onset amyotrophic lateral sclerosis/motor neurone disease variant at 20q13." in: <b>Journal of medical genetics</b> , Vol. 41, Issue 4, pp. 315-20, (2004) ( <a href="#">PubMed</a> ). |
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### Western Blotting

**Image 1.** WB Suggested Anti-MBD1 Antibody Titration: 0.2-1 ug/ml Positive Control: HepG2 cell lysate