

## Product datasheet for **TA329749**

### **MBD1 Rabbit Polyclonal Antibody**

#### **Product data:**

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Applications:           | WB  |
| Recommended Dilution:   | WB  |
| Reactivity:             | Human   |
| Host:                   | Rabbit  |
| Isotype:                | IgG   |
| Clonality:              | Polyclonal  |
| Immunogen:              | The immunogen for anti-MBD1 antibody: synthetic peptide directed towards the C terminal of human MBD1. Synthetic peptide located within the following region:<br>NKDSSASKLAPEEEAGGAGTPVITEIFSLGGTRFRDТАVWLPRSKDLKKP |
| Formulation:            | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.<br><i>Note that this product is shipped as lyophilized powder to China customers.</i>                             |
| Conjugation:            | Unconjugated  |
| Storage:                | Store at -20°C as received.   |
| Stability:              | Stable for 12 months from date of receipt.  |
| Predicted Protein Size: | 60 kDa  |
| Gene Name:              | methyl-CpG binding domain protein 1   |
| Database Link:          | <a href="#">NP_056669</a><br><a href="#">Entrez Gene 4152 Human</a><br><a href="#">Q9UIS9</a>   |



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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.

**Synonyms:**

CXXC3; PCM1; RFT

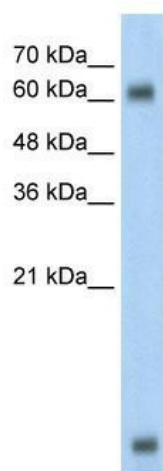
**Note:**

Immunogen sequence homology: Dog: 100%; Pig: 100%; Rat: 100%; Horse: 100%; Human: 100%; Bovine: 100%; Rabbit: 100%; Guinea pig: 100%; Mouse: 86%

**Protein Families:**

Druggable Genome, Transcription Factors

## Product images:



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