

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse                                                                           |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human and mouse MBD4 in Western blots.                                        |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                   |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                             |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human MBD4<br>Met382-Ser580<br>Accession # O95243 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm   |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                          |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                       |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

MBD4 (Methyl CpG-binding domain protein 4; also MED1) is a 65-68 kDa member of the methyl CpG binding protein family. It is expressed in non-germline cells, and serves at least two functions: one, it interacts with FADD to up- or down-regulate apoptosis, and two, it acts as a DNA N-glycosylase that excises improper chromosomal thymines that are created through the spontaneous deamination of methylcytosine to thymine. Human MBD4 is 580 amino acids (aa) in length. It contains one DNA-binding MBD domain (aa 76-148) and one endonuclease domain (aa 455-580). There are three isoform variants. One shows a deletion of aa 395-400, another shows an AlaPro substitution for aa 539-580, and a third shows a Gln substitution for aa 83-401. Over aa 382-580, human MBD4 shares 90% aa identity with mouse MBD4.

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