

**MBD3 Antibody (N-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP13755a****Specification**

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**MBD3 Antibody (N-term) Blocking peptide - Product Information**Primary Accession [O95983](#)**MBD3 Antibody (N-term) Blocking peptide - Additional Information**

Gene ID 53615

**Other Names**

Methyl-CpG-binding domain protein 3, Methyl-CpG-binding protein MBD3, MBD3

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP13755a was selected from the N-term region of MBD3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**MBD3 Antibody (N-term) Blocking peptide - Protein Information**

Name MBD3

**Function**

Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin (PubMed: [16428440](http://www.uniprot.org/citations/16428440), PubMed: [12124384](http://www.uniprot.org/citations/12124384), PubMed: [16428440](http://www.uniprot.org/citations/16428440), PubMed: [28977666](http://www.uniprot.org/citations/28977666)). Acts as transcriptional repressor and plays a role in gene silencing (PubMed: [10947852](http://www.uniprot.org/citations/10947852), PubMed: [18644863](http://www.uniprot.org/citations/18644863)). Does not bind to methylated DNA by itself (PubMed: [12124384](http://www.uniprot.org/citations/12124384), PubMed: [16428440](http://www.uniprot.org/citations/16428440)). Binds to a lesser degree DNA containing unmethylated CpG dinucleotides (PubMed: [24307175](http://www.uniprot.org/citations/24307175)). Recruits

histone deacetylases and DNA methyltransferases.

#### **Cellular Location**

Nucleus. Chromosome. Note=Nuclear, in discrete foci. Detected on chromatin, at promoter regions of active genes

#### **MBD3 Antibody (N-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

#### **MBD3 Antibody (N-term) Blocking peptide - Images**

#### **MBD3 Antibody (N-term) Blocking peptide - Background**

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). However, unlike the other family members, MBD3 is not capable of binding to methylated DNA. The predicted MBD3 protein shares 71% and 94% identity with MBD2 (isoform 1) and mouse Mbd3. MBD3 is a subunit of the NuRD, a multisubunit complex containing nucleosome remodeling and histone deacetylase activities. MBD3 mediates the association of metastasis-associated protein 2 (MTA2) with the core histone deacetylase complex.

#### **MBD3 Antibody (N-term) Blocking peptide - References**

Bachmann, N., et al. Eur J Med Genet 53(1):23-24(2010) Noh, E.J., et al. Biochem. Biophys. Res. Commun. 378(3):332-337(2009) Morey, L., et al. Mol. Cell. Biol. 28(19):5912-5923(2008) Brown, S.E., et al. Gene 420(2):99-106(2008) Spensberger, D., et al. Biochemistry 47(24):6418-6426(2008)