

MBD4 Antibody Blocking Peptide

Synthetic peptide

Catalog # BP1039a

Specification

MBD4 Antibody Blocking Peptide - Product Information

Primary Accession

[O95243](#)

Other Accession

[NP_003916](#)**MBD4 Antibody Blocking Peptide - Additional Information**

Gene ID 8930

Other Names

Methyl-CpG-binding domain protein 4, 322-, Methyl-CpG-binding endonuclease 1,
Methyl-CpG-binding protein MBD4, Mismatch-specific DNA N-glycosylase, MBD4, MED1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1039a](/product/products/AP1039a) was selected from the region of human MBD4. 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.

MBD4 Antibody Blocking Peptide - Protein InformationName MBD4 ([HGNC:6919](#))**Function**

Mismatch-specific DNA N-glycosylase involved in DNA repair. Has thymine glycosylase activity and is specific for G:T mismatches within methylated and unmethylated CpG sites. Can also remove uracil or 5-fluorouracil in G:U mismatches. Has no lyase activity. Was first identified as methyl-CpG-binding protein.

Cellular Location

Nucleus.

MBD4 Antibody Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

MBD4 Antibody Blocking Peptide - Images

MBD4 Antibody 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). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MBD4 may function to mediate the biological consequences of the methylation signal. In addition, MBD4 has protein sequence similarity to bacterial DNA repair enzymes and thus may have some function in DNA repair. Further, MBD4 gene mutations are detected in tumors with primary microsatellite-instability (MSI), a form of genomic instability associated with defective DNA mismatch repair, and the MBD4 gene meets 4 of 5 criteria of a bona fide MIS target gene.

MBD4 Antibody Blocking Peptide - References

Evertson, S., et al., Anticancer Res. 23(4):3569-3574 (2003). Yamada, T., et al., Cancer Lett. 181(1):115-120 (2002). Schlegel, J., et al., Oncol. Rep. 9(2):393-395 (2002). Petronzelli, F., et al., J. Biol. Chem. 275(42):32422-32429 (2000). Petronzelli, F., et al., J. Cell. Physiol. 185(3):473-480 (2000).