10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DMAP1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6136a

Specification

DMAP1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q9NPF5
Other Accession	NP_061973

DMAP1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 55929

Other Names
DNA methyltransferase 1-associated protein 1, DNMAP1, DNMT1-associated protein 1, DMAP1, KIAA1425

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6136a was selected from the C-term region of human DMAP1 . 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.

DMAP1 Antibody (C-term) Blocking Peptide - Protein Information

Name DMAP1

Synonyms KIAA1425

Function
Involved in transcription repression and activation. Its interaction with HDAC2 may provide a mechanism for histone deacetylation in heterochromatin following replication of DNA at late firing origins. Can also repress transcription independently of histone deacetylase activity. May specifically potentiate DAXX-mediated repression of glucocorticoid receptor-dependent transcription. Component of the NuA4 histone acetyltransferase (HAT) complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histones H4 and H2A. This modification may both alter nucleosome - DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription. This complex

may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair. NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage. Participates in the nuclear localization of URI1 and increases its transcriptional corepressor activity.

Cellular Location
Nucleus. Cytoplasm. Note=Targeted to replication foci throughout S phase by DNMT1

DMAP1 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

DMAP1 Antibody (C-term) Blocking Peptide - Images

DMAP1 Antibody (C-term) Blocking Peptide - Background

DNA methylation can help to regulate transcriptional silencing via repressive transcription complexes, which include methyl-CpG-binding domain proteins and histone deacetylases (HDACs) DNMT1, the core enzyme for mammalian DNA methylation, can also establish a repressive transcription complex consisting of DNMT1, HDAC2, and a third protein, termed DMAP1 for 'DNMT1-associated protein.' The 467-amino acid DMAP1 protein shares approximately 98% amino acid sequence homology with the mouse protein. DMAP1 interacts directly with the N-terminal region of DNMT1, and DMAP1 can repress transcription independently of histone deacetylase activity. DNMT1, HDAC2, and DMAP1 form a complex in vivo, and DMAP1 can interact directly with the transcriptional corepressor TSG101. The DNMT1-DMAP1exists throughout the S phase; HDAC2 joins DNMT1 and DMAP1 only during late S phase. This provides a regulated means to deacetylate heterochromatin following replication.

DMAP1 Antibody (C-term) Blocking Peptide - References

Rountree, M.R., et al., Nat. Genet. 25(3):269-277 (2000).