

**MTA1 Blocking Peptide(C-term)**

Synthetic peptide

Catalog # BP19705B

**Specification**

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**MTA1 Blocking Peptide(C-term) - Product Information**

Primary Accession

[O13330](#)

Other Accession

[O62599](#), [O8K4B0](#), [NP\\_004680.2](#)**MTA1 Blocking Peptide(C-term) - Additional Information**

Gene ID 9112

**Other Names**

Metastasis-associated protein MTA1, MTA1

**Target/Specificity**

The synthetic peptide sequence is selected from aa 674-687 of HUMAN MTA1

**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.

**MTA1 Blocking Peptide(C-term) - Protein Information**

Name MTA1

**Function**

Transcriptional coregulator which can act as both a transcriptional corepressor and coactivator (PubMed: [16617102](http://www.uniprot.org/citations/16617102)), PubMed: [17671180](http://www.uniprot.org/citations/17671180), PubMed: [17922032](http://www.uniprot.org/citations/17922032), PubMed: [21965678](http://www.uniprot.org/citations/21965678), PubMed: [24413532](http://www.uniprot.org/citations/24413532)). 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: [28977666](http://www.uniprot.org/citations/28977666)). In the NuRD complex, regulates transcription of its targets by modifying the acetylation status of the target chromatin and cofactor accessibility to the target DNA (PubMed: [17671180](http://www.uniprot.org/citations/17671180)). In conjunction with other components of NuRD, acts as a transcriptional corepressor of BRCA1, ESR1, TFF1 and CDKN1A (PubMed:

href="http://www.uniprot.org/citations/17922032" target="\_blank">17922032</a>, PubMed:<a href="http://www.uniprot.org/citations/24413532" target="\_blank">24413532</a>). Acts as a transcriptional coactivator of BCAS3, and SUMO2, independent of the NuRD complex (PubMed:<a href="http://www.uniprot.org/citations/21965678" target="\_blank">21965678</a>, PubMed:<a href="http://www.uniprot.org/citations/17671180" target="\_blank">17671180</a>, PubMed:<a href="http://www.uniprot.org/citations/16617102" target="\_blank">16617102</a>). Stimulates the expression of WNT1 by inhibiting the expression of its transcriptional corepressor SIX3 (By similarity). Regulates p53-dependent and -independent DNA repair processes following genotoxic stress (PubMed:<a href="http://www.uniprot.org/citations/19837670" target="\_blank">19837670</a>). Regulates the stability and function of p53/TP53 by inhibiting its ubiquitination by COP1 and MDM2 thereby regulating the p53-dependent DNA repair (PubMed:<a href="http://www.uniprot.org/citations/19837670" target="\_blank">19837670</a>). Plays a role in the regulation of the circadian clock and is essential for the generation and maintenance of circadian rhythms under constant light and for normal entrainment of behavior to light-dark (LD) cycles (By similarity). Positively regulates the CLOCK- BMAL1 heterodimer mediated transcriptional activation of its own transcription and the transcription of CRY1 (By similarity). Regulates deacetylation of BMAL1 by regulating SIRT1 expression, resulting in derepressing CRY1-mediated transcription repression (By similarity). With TFCP2L1, promotes establishment and maintenance of pluripotency in embryonic stem cells (ESCs) and inhibits endoderm differentiation (By similarity).

#### Cellular Location

Nucleus [Isoform Long]: Nucleus. Nucleus envelope. Cytoplasm. Cytoplasm, cytoskeleton. Note=Associated with microtubules (PubMed:24970816). Localization at the nuclear envelope is TPR- dependent (PubMed:24970816).

#### Tissue Location

Widely expressed. High expression in brain, liver, kidney, and cardiac muscle, ovaries, adrenal glands and virgin mammary glands. Higher in tumors than in adjacent normal tissue from the same individual. Up-regulated in a wide variety of cancers including breast, liver, ovarian, and colorectal cancer and its expression levels are closely correlated with tumor aggressiveness and metastasis

#### MTA1 Blocking Peptide(C-term) - Protocols

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

- [Blocking Peptides](#)

#### MTA1 Blocking Peptide(C-term) - Images

#### MTA1 Blocking Peptide(C-term) - Background

This gene encodes a protein that was identified in a screen for genes expressed in metastatic cells, specifically, mammary adenocarcinoma cell lines. Expression of this gene has been correlated with the metastatic potential of at least two types of carcinomas although it is also expressed in many normal tissues. The role it plays in metastasis is unclear. It was initially thought to be the 70kD component of a nucleosome remodeling deacetylase complex, NuRD, but it is more likely that this component is a different but very similar protein. These two proteins are so closely related, though, that they share the same types of domains. These domains include two DNA binding domains, a dimerization domain, and a domain commonly found in proteins that methylate DNA. The profile and activity of this gene product

suggest that it is involved in regulating transcription and that this may be accomplished by chromatin remodeling. [provided by RefSeq].

#### **MTA1 Blocking Peptide(C-term) - References**

- Zhu, X., et al. J Thorac Oncol 5(8):1159-1166(2010)  
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Yang, Y.M., et al. Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi 26(7):682-684(2010)  
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