



Product Information

Anti-MTA2/MTA1L1 (PD-17)

Developed in Rabbit
Affinity Isolated Antibody

Product Number **M 7818**

Product Description

Anti-MTA2/MTA1L1 (PD-17) is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acids 652-668 of human MTA2/MTA1L1, conjugated to KLH via an N-terminal added lysine residue. The corresponding sequence differs in rat and mouse by one amino acid. MTA2/MTA1L1 and MTA1 are identical at the N- and C-termini. The antibody is affinity purified on the immunizing peptide immobilized on agarose.

Anti-MTA2/MTA1L1 (PD-17) recognizes specifically MTA1L1/MTA2. Applications include immunoblotting (~73 kDa) and immunoprecipitation. The antibody does not cross react with MTA1 of MTA3. Staining of the MTA2/MTA1L1 band in immunoblotting is specifically inhibited by the immunizing peptide.

Metastasis-associated genes (MTAs) comprise a novel gene family with a growing number of members. Currently, there are three known genes encoding six isoforms (MTA1, MTA1S, MTA-ZG29p, MTA2/MTA1L1, MTA3, MTA3L).¹⁻³ Human MTA2 is a 668 amino acids protein that shares about 80% overall homology to human MTA1 and MTA3 proteins, the C-terminus being more divergent than the N-terminus.² The discovery that both, MTA1 and MTA2/MTA1L1, interact with the deacetylases HDAC1 and HDAC2 within the nuclear remodeling and deacetylation complexes Mi2/NuRD, suggests that these proteins are involved in transcriptional repression.⁴⁻⁶ MTA3 is characterized as being part of another NuRD complex. MTA3 is an estrogen receptor (ER)-regulated gene that targets the transcription factor Snail, which in turn represses E-cadherin expression, leading to epithelial de-differentiation and increased metastasis.²

In the p53 pathway, MTA2/MTA1L1 is better known as PID. PID expression represses p53-dependent transcriptional activation, and modulates p53-mediated growth arrest and apoptosis, showing that deacetylation and functional interaction by the PID/MTA2/MTA1L1 associated NuRD complex may represent an important pathway to regulated p53 function.³

Reagent

Anti-MTA2/MTA1L1 (PD-17) is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 15 mM sodium azide.

Antibody Concentration: approx.0.5 mg/ml

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in frost-free freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

By immunoblotting, a working antibody concentration of 0.5-1.0 µg/ml is recommended using nuclear extracts of MCF7 cells.

By immunoprecipitation, 2.5-5.0 µg of the antibody immunoprecipitates MTA2/MTA1L1 from extracts of MCF7 cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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2. Fujita, N., et al, Cell, **113**, 207-219 (2003).
3. Luo, J., et al., Nature, **408**, 377-381 (2000).
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5. Toh, Y., et al., J. Exp. Clin. Cancer Res., **19**, 105-111 (2000).
6. Xue, Y., et al., Molec. Cell, **2**, 851-861 (1998).

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