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ProductInformation

Anti-MTA2/MTA1L1 (RT-16)
Developed in Rabbit, IgG fraction of antiserum

Product Description

Anti MTA2/MTA1L1 (RT-16) is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acids 626-641 of human MTA2/MTA1L1, conjugated to KLH via an N-terminal added cysteine residue. The immunizing peptide is conserved in human, mouse, and rat, and is not present in other members of the family. Whole antiserum is fractionated and then further purified by ion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.

Anti MTA2/MTA1L1 (RT-16) specifically recognizes MTA2/MTA1L1. Applications include immunoblotting (73 kDa), immmunofluorescence, and immunoprecipitation. The antibody does not cross react with MTA1 or 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. There are three known genes encoding for six isoforms : MTA1, MTA1S, MTA-ZG29p, MTA2/MTA1L1, MTA3, MTA3L.[1-3] Human MTA2 is a 668 amino acids protein that shares approx. 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 histone 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 was shown to be an estrogen receptor (ER)-regulated gene, which targets the transcription factor Snail, repressing in turn E-cadherin expression and 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.[7]

Reagent

Anti-MTA2/MTA1L1 (RT-16) is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a presevative.

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 dilution of 1:2,00-1:4,000 is recommended using nuclear extracts of MCF7 cells.

By immunoprecipitation, 1-2 µl of the antibody immunoprecipitates MTA2/MTA1L1 from 293-T cell lysate.

By indirect immunofluorescence, a working dilution of 1:100-1:200 is recommended using methanol-acetone fixed C2 myoblasts.

Recommendation: For immunoblotting, dilute the antibody in phosphate buffered saline containing 5% non-fat dry milk and 0.05 % Tween™ 20.

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

References

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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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