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ProductInformation

Anti-RbAp46, C-Terminal
Produced in Rabbit, Affinity Isolated Antibody

Product Number **R 4279**

Product Description

Anti-RbAp46, C-terminal is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acids 411-425 of human RbAp46, conjugated to KLH via an N-terminal added cysteine residue. The immunizing peptide is conserved in human and differs from the mouse sequence by one amino acid. The antibody is affinity purified on the immunizing peptide immobilized on agarose.

Anti-RbAp46, C-terminal specifically recognizes human RbAp46. Applications include immunoblotting (46 kDa) and immunofluorescence. Staining of the RbAp46 band in immunoblotting is specifically inhibited by the immunizing peptide.

Gene transcription in eukaryotes is controlled by a dynamyc interplay between transcriptional activation and repression, both taking place in the context of chromatin.[1, 2] Therefore, chromatin remodeling is one of the critical steps in gene silencing.[3, 4] Chromatin remodeling factors drive mobilization of the nucleosome by both catalyzation of ATP hydrolysis as well as by histone deacetylation.[5-7] The acetylation status of histones at specific DNA regulatory sequences depends on the recruitment of histone acetyltransferase or histone deacetylase (HDAC) activities usually as part of large multiprotein complexes of coactivators or corepressors, respectively.[2, 7] RbAp48 is a 425 amino acids WD-domain protein isolated as a RB1 (retinoblastoma binding protein). RbAp46 (also known as RBBP7-retinoblastoma-binding protein 7) has 89% amino acid identity with RbAp48.[8] RbAp46 and RbAp48 are found in association with chromatin remodeling complexes Sin3A/HDAC and NURD (nucleosomal remodeling and deacetylation complex). Transcriptional repressors exert their effects by recruitment of the Sin3A/HDAC correpressor complex, which contains a module composed of Sin3A, HDAC1, HDAC2, RbAp46, RbAp48, SAP30, and others.[9, 10] In the NuRD complex, HDAC1, HDAC2, RbAp48, and RbAp46 associate with MTA2, MBD3, MAT1L1, MBD3L1, CHD3, and CHD4 to form the nucleosomal remodeling and deacetylation (NuRD) complex.[11]

Reagent

The antibody is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.0 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 µg/mL is recommended using HeLa nuclear extracts.

By indirect immunofluorescence, a working antibody concentration of 2-4 µg/mL is recommended using HeLa cells fixed with paraformaldehyde-triton.

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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