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Anti-RbAp48 Picoband Antibody

Catalog # ABO12483

Product Information

Application	WB, IHC-P, IHC-F
Primary Accession	Q09028
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Histone-binding protein RBBP4(RBBP4) detection. Tested with WB, IHC-P, IHC-F in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5928
Other Names	Histone-binding protein RBBP4, Chromatin assembly factor 1 subunit C, CAF-1 subunit C, Chromatin assembly factor I p48 subunit, CAF-I 48 kDa subunit, CAF-I p48, Nucleosome-remodeling factor subunit RBAP48, Retinoblastoma-binding protein 4, RBBP-4, Retinoblastoma-binding protein p48, RBBP4, RBAP48
Calculated MW	47656
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, By Heat Immunohistochemistry(Frozen Section), 0.5-1 □g/ml Western blot, 0.1-0.5 □g/ml
Subcellular Localization	Nucleus.
Source	Eukaryota
Protein Name	Histone-binding protein RBBP4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RbAp48 (395-425aa EDNIMQVWQMAENIYNDEDPEGSVDPEGQGS), identical to the related mouse sequence.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	RBBP4
Synonyms	RBAP48
Function	Core histone-binding subunit that may target chromatin assembly factors, chromatin remodeling factors and histone deacetylases to their histone substrates in a manner that is regulated by nucleosomal DNA (PubMed:10866654). Component of the chromatin assembly factor 1 (CAF-1) complex, which is required for chromatin assembly following DNA replication and DNA repair (PubMed:8858152). Component of the core histone deacetylase (HDAC) complex, which promotes histone deacetylation and consequent transcriptional repression (PubMed:9150135). Component of the nucleosome remodeling and histone deacetylase complex (the NuRD complex), which promotes transcriptional repression by histone deacetylation and nucleosome remodeling (PubMed:16428440, PubMed:28977666, PubMed:39460621). Component of the PRC2 complex, which promotes repression of homeotic genes during development (PubMed:29499137, PubMed:31959557). Component of the NURF (nucleosome remodeling factor) complex (PubMed:14609955, PubMed:15310751).
Cellular Location	Nucleus. Chromosome, telomere. Note=Localizes to chromatin as part of the PRC2 complex.
Tissue Location	Expressed in neuroblastoma cells.

Background

Histone-binding protein RBBP4 (also known as RbAp48, or NURF55) is a protein that in humans is encoded by the RBBP4 gene. This gene encodes a ubiquitously expressed nuclear protein which belongs to a highly conserved subfamily of WD-repeat proteins. It is present in protein complexes involved in histone acetylation and chromatin assembly. And it is part of the Mi-2 complex which has been implicated in chromatin remodeling and transcriptional repression associated with histone deacetylation. This encoded protein is also part of co-repressor complexes, which is an integral component of transcriptional silencing. It is found among several cellular proteins that bind directly to retinoblastoma protein to regulate cell proliferation. This protein also seems to be involved in transcriptional repression of E2F-responsive genes. Three transcript variants encoding different isoforms have been found for this gene.

Images

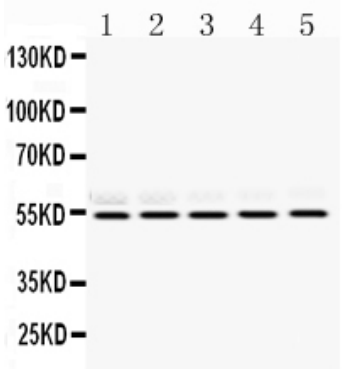


Figure 1. Western blot analysis of RbAp48 using anti-RbAp48 antibody (ABO12483). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Brain Tissue Lysate,Lane 2: Mouse Liver Tissue Lysate,Lane 3: Mouse Lung Tissue Lysate,Lane 4: HELA Whole Cell Lysate,Lane 5: JURKAT Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat

Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RbAp48 antigen affinity purified polyclonal antibody (Catalog # ABO12483) at 0.5 □¼g/mL overnight at 4 □°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for RbAp48 at approximately 54KD. The expected band size for RbAp48 is at 54KD.

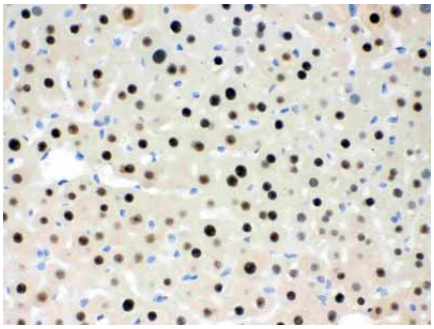


Figure 2. IHC analysis of RbAp48 using anti-RbAp48 antibody (ABO12483).RbAp48 was detected in paraffin-embedded section of Mouse Liver Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-RbAp48 Antibody (ABO12483) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

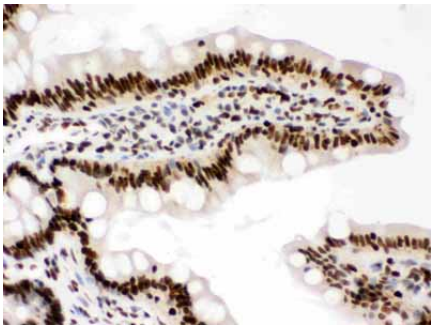


Figure 3. IHC analysis of RbAp48 using anti-RbAp48 antibody (ABO12483).RbAp48 was detected in paraffin-embedded section of Rat Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-RbAp48 Antibody (ABO12483) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

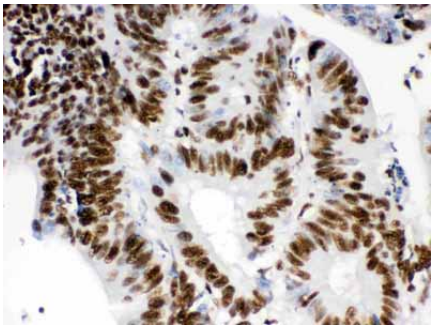
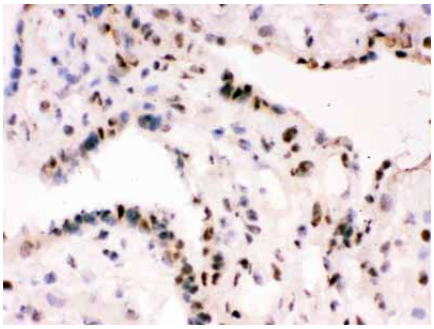


Figure 4. IHC analysis of RbAp48 using anti-RbAp48 antibody (ABO12483).RbAp48 was detected in paraffin-embedded section of Human Intestinal Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-RbAp48 Antibody (ABO12483) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Figure 5. IHC analysis of RbAp48 using anti-RbAp48 antibody (ABO12483).RbAp48 was detected in frozen section of human placenta tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was



blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-RbAp48 Antibody (ABO12483) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

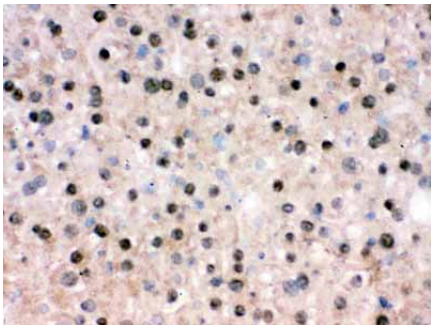


Figure 6. IHC analysis of RbAp48 using anti-RbAp48 antibody (ABO12483).RbAp48 was detected in frozen section of mouse liver tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-RbAp48 Antibody (ABO12483) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

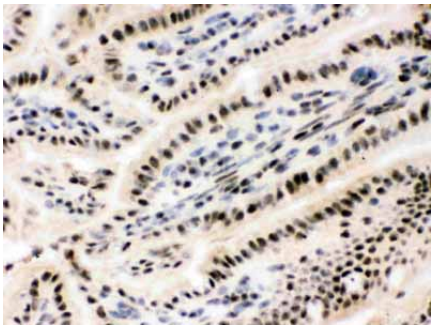


Figure 7. IHC analysis of RbAp48 using anti-RbAp48 antibody (ABO12483).RbAp48 was detected in frozen section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-RbAp48 Antibody (ABO12483) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

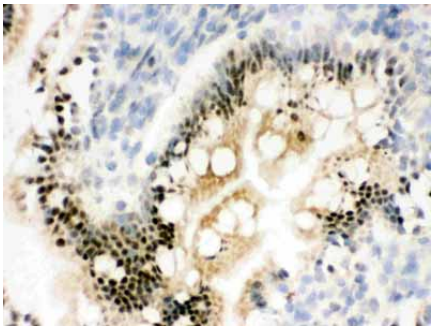


Figure 8. IHC analysis of RbAp48 using anti-RbAp48 antibody (ABO12483).RbAp48 was detected in frozen section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 □¼g/ml rabbit anti-RbAp48 Antibody (ABO12483) overnight at 4 □°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 □°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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