


Anti-ATM antibody ab17995

★★★★★ [4 Abreviews](#) [15 References](#) [2 图像](#)

概述

| | |
|-------|--|
| 产品名称 | Anti-ATM抗体 |
| 描述 | 兔多克隆抗体to ATM |
| 宿主 | Rabbit |
| 经测试应用 | 适用于: WB, IHC-P |
| 种属反应性 | 与反应: Human 预测可用于: Chimpanzee  |
| 免疫原 | Synthetic peptide: MDHPHHTLFIIILALANANRDEFLTKPEVARRSRITKNVPKQS SQLDEDRT E , corresponding to amino acids 2550-2600 of Human ATM. Run BLAST with Run BLAST with |

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

| | |
|------|---|
| 形式 | Liquid |
| 存放说明 | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. |
| 存储溶液 | pH: 7 Preservative: 0.09% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris |
| 纯度 | Immunogen affinity purified |
| 纯化说明 | Antibody was affinity purified using an epitope specific to ATM immobilized on solid support. |
| 克隆 | 多克隆 |
| 同种型 | IgG |

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab17995于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|-------|-----------|--|
| WB | ★★★★★ (4) | 1/5000 - 1/25000. Detects a band of approximately 350 kDa (predicted molecular weight: 350 kDa). |
| IHC-P | | 1/500 - 1/2000. Do not perform antigen retrieval. |

靶标

| | |
|--------------|--|
| 功能 | <p>Serine/threonine protein kinase which activates checkpoint signaling upon double strand breaks (DSBs), apoptosis and genotoxic stresses such as ionizing ultraviolet A light (UVA), thereby acting as a DNA damage sensor. Recognizes the substrate consensus sequence [ST]-Q. Phosphorylates 'Ser-139' of histone variant H2AX/H2AFX at double strand breaks (DSBs), thereby regulating DNA damage response mechanism. Also plays a role in pre-B cell allelic exclusion, a process leading to expression of a single immunoglobulin heavy chain allele to enforce clonality and monospecific recognition by the B-cell antigen receptor (BCR) expressed on individual B lymphocytes. After the introduction of DNA breaks by the RAG complex on one immunoglobulin allele, acts by mediating a repositioning of the second allele to pericentromeric heterochromatin, preventing accessibility to the RAG complex and recombination of the second allele. Also involved in signal transduction and cell cycle control. May function as a tumor suppressor. Necessary for activation of ABL1 and SAPK. Phosphorylates p53/TP53, FANCD2, NFKBIA, BRCA1, CTIP, nibrin (NBN), TERF1, RAD9 and DCLRE1C. May play a role in vesicle and/or protein transport. Could play a role in T-cell development, gonad and neurological function. Plays a role in replication-dependent histone mRNA degradation. Binds DNA ends.</p> |
| 组织特异性 | <p>Found in pancreas, kidney, skeletal muscle, liver, lung, placenta, brain, heart, spleen, thymus, testis, ovary, small intestine, colon and leukocytes.</p> |
| 疾病相关 | <p>Defects in ATM are the cause of ataxia telangiectasia (AT) [MIM:208900]; also known as Louis-Bar syndrome, which includes four complementation groups: A, C, D and E. This rare recessive disorder is characterized by progressive cerebellar ataxia, dilation of the blood vessels in the conjunctiva and eyeballs, immunodeficiency, growth retardation and sexual immaturity. AT patients have a strong predisposition to cancer; about 30% of patients develop tumors, particularly lymphomas and leukemias. Cells from affected individuals are highly sensitive to damage by ionizing radiation and resistant to inhibition of DNA synthesis following irradiation. Note=Defects in ATM contribute to T-cell acute lymphoblastic leukemia (TALL) and T-prolymphocytic leukemia (TPLL). TPLL is characterized by a high white blood cell count, with a predominance of prolymphocytes, marked splenomegaly, lymphadenopathy, skin lesions and serous effusion. The clinical course is highly aggressive, with poor response to chemotherapy and short survival time. TPLL occurs both in adults as a sporadic disease and in younger AT patients. Note=Defects in ATM contribute to B-cell non-Hodgkin lymphomas (BNHL), including mantle cell lymphoma (MCL). Note=Defects in ATM contribute to B-cell chronic lymphocytic leukemia (BCLL). BCLL is the commonest form of leukemia in the elderly. It is characterized by the accumulation of mature CD5+ B lymphocytes, lymphadenopathy, immunodeficiency and bone marrow failure.</p> |
| 序列相似性 | <p>Belongs to the PI3/PI4-kinase family. ATM subfamily. Contains 1 FAT domain.</p> |

Contains 1 FATC domain.
Contains 1 PI3K/PI4K domain.

结构域

The FATC domain is required for interaction with KAT5.

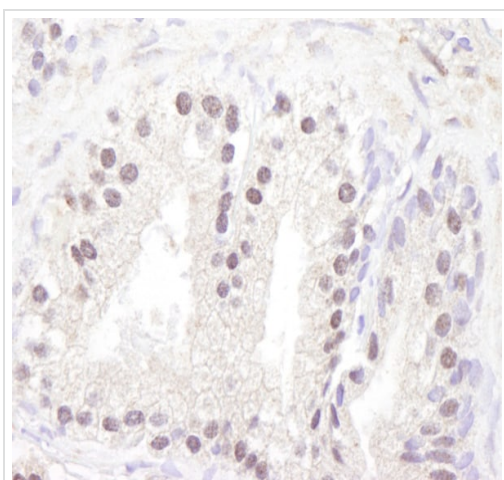
翻译后修饰

Phosphorylated by NUAK1/ARK5. Autophosphorylation on Ser-367, Ser-1893, Ser-1981 correlates with DNA damage-mediated activation of the kinase.
Acetylation, on DNA damage, is required for activation of the kinase activity, dimer-monomer transition, and subsequent autophosphorylation on Ser-1981. Acetylated in vitro by KAT5/TIP60.

细胞定位

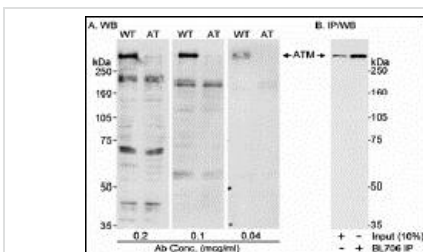
Nucleus. Cytoplasmic vesicle. Primarily nuclear. Found also in endocytic vesicles in association with beta-adaptin.

图片



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate-nodular hypertrophy tissue labelling ATM with ab17995 at 1/1000 (1µg/ml). Detection: DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATM antibody (ab17995)



Western blot - Anti-ATM antibody (ab17995)

Detection of Human ATM using ab17995 by Western Blot and Immunoprecipitation. *Samples:* A) Whole cell lysate (50 µg) from human L-40 (WT) or AT-59 (AT) cells. B) Whole cell lysate (1 mg) from WT cells. Antibody used at indicated concentrations for WB and at 0.5 µg/mg lysate for IP. Immunoprecipitated ATM was blotted with a monoclonal antibody to ATM. Detected by chemiluminescence with an exposure time of 30 seconds.

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