

ATM Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP8046b**Specification****ATM Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [Q13315](#)**ATM Antibody (C-term) Blocking Peptide - Additional Information****Gene ID 472****Other Names**

Serine-protein kinase ATM, Ataxia telangiectasia mutated, A-T mutated, ATM

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8046b](/product/products/AP8046b) was selected from the C-term region of human ATM. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ATM Antibody (C-term) Blocking Peptide - Protein Information**Name ATM****Function****ATM Antibody (C-term) Blocking Peptide - Background**

ATM is involved in signal transduction, cell cycle control and DNA repair, and may function as a tumor suppressor. It is necessary for activation of ABL1 and SAPK, and phosphorylates p53, NFKBIA, BRCA1, CTIP, NIBRIN (NBS1), TERF1, and RAD9. This protein has potential roles in vesicle and/or protein transport, T-cell development, gonad and neurological function. ATM is also part of the BRCA1-associated genome surveillance complex. ATM is induced by ionizing radiation. Defects in ATM are the cause of ataxia telangiectasia (AT), also known as Louis-Bar syndrome, a rare recessive disorder characterized by progressive cerebellar ataxia, dilation of the blood vessels in the conjunctiva and eyeballs, immunodeficiency, growth retardation and sexual immaturity. About 30% of AT patients develop lymphomas and leukemias. Defects in ATM also 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. Defects in ATM also contribute to B-cell non-Hodgkin's lymphomas, and to B-cell chronic lymphocytic leukemia, a disease characterized by accumulation of mature CD5+ B lymphocytes, lymphadenopathy, immunodeficiency and bone marrow failure.

ATM Antibody (C-term) Blocking Peptide - References

Suzuki, A., et al., J. Biol. Chem. 278(1):48-53 (2003). Kishi, S., et al., J. Biol. Chem. 276(31):29282-29291 (2001). Schaffner, C., et al., Proc. Natl. Acad. Sci. U.S.A. 97(6):2773-2778 (2000). Gatei, M., et al., Nat. Genet. 25(1):115-119 (2000). Becker-Catania, S.G., et al., Mol. Genet. Metab. 70(2):122-133 (2000).

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tations/30612738"
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tations/30886146"
target="_blank">30886146). 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.
Phosphorylation of DYRK2 in nucleus in
response to genotoxic stress prevents its
MDM2-mediated ubiquitination and
subsequent proteasome degradation.
Phosphorylates ATF2 which stimulates its
function in DNA damage response.
Phosphorylates ERCC6 which is essential for
its chromatin remodeling activity at DNA
double-strand breaks (PubMed:<a href="htt
p://www.uniprot.org/citations/29203878"
target="_blank">29203878).

Cellular Location

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

Tissue Location

Found in pancreas, kidney, skeletal muscle,
liver, lung, placenta, brain, heart, spleen,
thymus, testis, ovary, small intestine, colon
and leukocytes

**ATM Antibody (C-term) Blocking Peptide -
Protocols**

Provided below are standard protocols that you
may find useful for product applications.

- [Blocking Peptides](#)