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BLM Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4860b

Specification

BLM Antibody (C-term) - Product Information

Application	**WB, FC,E**
Primary Accession	P54132
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**159000**
Antigen Region	**1054-1082**

BLM Antibody (C-term) - Additional Information

Gene ID 641

Other Names
Bloom syndrome protein, DNA helicase, RecQ-like type 2, RecQ2, RecQ protein-like 3, BLM, RECQ2, RECQL3

Target/Specificity
This BLM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1054-1082 amino acids from the C-terminal region of human BLM.

Dilution
WB~~1:1000
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
BLM Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

BLM Antibody (C-term) - Protein Information

Name BLM

Synonyms RECQ2, RECQL3

Function ATP-dependent DNA helicase that unwinds double-stranded (ds)DNA in a 3'-5' direction (PubMed:24816114, PubMed:25901030, PubMed:9388193, PubMed:9765292). Participates in DNA replication and repair (PubMed:12019152, PubMed:21325134, PubMed:23509288, PubMed:34606619). Involved in 5'-end resection of DNA during double- strand break (DSB) repair: unwinds DNA and recruits DNA2 which mediates the cleavage of 5'-ssDNA (PubMed:21325134). Stimulates DNA 4-way junction branch migration and DNA Holliday junction dissolution (PubMed:25901030). Binds single-stranded DNA (ssDNA), forked duplex DNA and Holliday junction DNA (PubMed:20639533, PubMed:24257077, PubMed:25901030). Unwinds G-quadruplex DNA; unwinding occurs in the 3'- 5' direction and requires a 3' single-stranded end of at least 7 nucleotides (PubMed:18426915, PubMed:9765292). Helicase activity is higher on G-quadruplex substrates than on duplex DNA substrates (PubMed:9765292). Telomeres, immunoglobulin heavy chain switch regions and rDNA are notably G-rich; formation of G-quadruplex DNA would block DNA replication and transcription (PubMed:18426915, PubMed:9765292). Negatively regulates sister chromatid exchange (SCE) (PubMed:25901030). Recruited by the KHDC3L-OOEP scaffold to DNA replication forks where it is retained by TRIM25 ubiquitination, it thereby promotes the restart of stalled replication forks (By similarity).

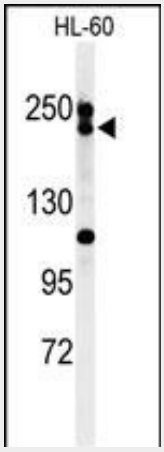
Cellular Location
Nucleus. Note=Together with SPIDR, is redistributed in discrete nuclear DNA damage-induced foci following hydroxyurea (HU) or camptothecin (CPT) treatment. Accumulated at sites of DNA damage in a RMI complex- and SPIDR-dependent manner

BLM Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BLM Antibody (C-term) - Images



Western blot analysis of BLM Antibody (C-term) (Cat. #AP4860b) in HL-60 cell line lysates (35ug/lane). BLM (arrow) was detected using the purified Pab.

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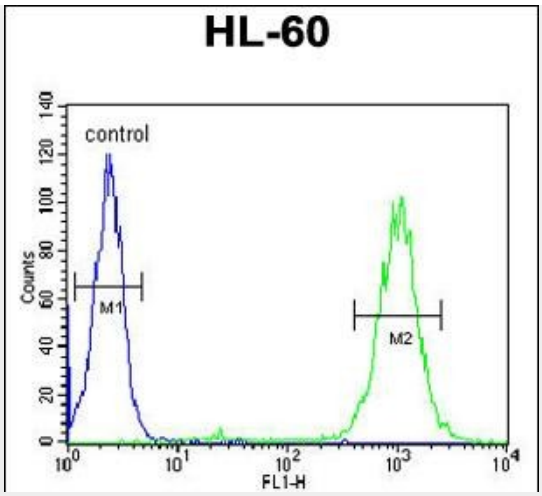

BLM Antibody (C-term) (Cat. #AP4860b) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

BLM Antibody (C-term) - Background

BLM is related to the RecQ subset of DExH box-containing DNA helicases and has both DNA-stimulated ATPase and ATP-dependent DNA helicase activities.

BLM Antibody (C-term) - References

Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Frank, B., et al. Carcinogenesis 31(3):442-445(2010)
Ouyang, K.J., et al. PLoS Biol. 7 (12), E1000252 (2009)