

#### **BLM Antibody (C-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP4860b

#### **Specification**

## BLM Antibody (C-term) - Product Information

Application Primary Accession	FC, WB,E <u>P54132</u>
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** FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.

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:<u>24816114</u>, PubMed:<u>25901030</u>, PubMed:<u>9388193</u>, PubMed:<u>9765292</u>). Participates in DNA replication and repair (PubMed: 12019152, PubMed: 21325134, PubMed: 23509288, PubMed: <u>34606619</u>). 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:<u>18426915</u>, PubMed:<u>9765292</u>). 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:<u>18426915</u>, PubMed:<u>9765292</u>). 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).

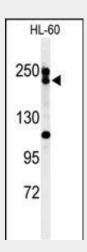
#### **Cellular Location**

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.

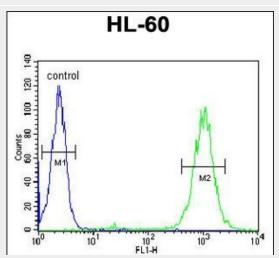
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>
- BLM Antibody (C-term) Images



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.



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)