



Rabbit Anti-BLM antibody

SL12872R

Product Name:	BLM
Chinese Name:	Bloom综合征相关蛋白抗体
Alias:	Blooms Syndrome Protein Blm; BLM; BLM_HUMAN; Bloom Syndrome; Bloom syndrome protein; Bloom syndrome RecQ helicase like; BS; DNA Helicase; DNA helicase RecQ like type 2; MGC126616; MGC131618; MGC131620; RECQ 2; RECQ like; RecQ like type 2; RecQ protein like 3; RecQ Protein-like 3; RECQ-2; RECQ-Like; RecQ-like type 2; RECQ2; RECQL 2; RECQL 3; RECQL-2; RECQL-3; RECQL2; RECQL3; type 2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500(Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	159kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BLM/Blooms Syndrome Protein Blm:1201-1417/1417
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Bloom's syndrome is an autosomal recessive disorder characterized by pre- and post-

natal growth deficiencies, sun sensitivity, immunodeficiency and a predisposition to various cancers. The gene responsible for Bloom's syndrome, BLM, encodes a protein homologous to the RecQ helicase of *E. coli* and is mutated in most Bloom's syndrome patients. One characteristic of Bloom's syndrome is an increased frequency of sister chromatid exchange (SCE). BLM has been shown to unwind G4 DNA, and a failure of this function is thought to be responsible for the increased rate of SCE. BLM is known to be translocated to the nucleus, where its ATPase activity is stimulated by both single- and double-stranded DNA. Mutations in the yeast SGS1, a homolog of BLM, are known to cause mitotic hyperrecombination similar to that observed in Bloom's cells.

Function:

Participates in DNA replication and repair. Exhibits a magnesium-dependent ATP-dependent DNA-helicase activity that unwinds single- and double-stranded DNA in a 3'-5' direction.

Subunit:

Part of the BRCA1-associated genome surveillance complex (BASC), which contains BRCA1, MSH2, MSH6, MLH1, ATM, BLM, PMS2 and the RAD50-MRE11-NBS1 protein complex. This association could be a dynamic process changing throughout the cell cycle and within subnuclear domains. Interacts with ubiquitinated FANCD2. Interacts with RMI complex. Interacts directly with RMI1 component of RMI complex. Interacts with SUPV3L1.

Subcellular Location:

Nucleus.

Post-translational modifications:

Phosphorylated in response to DNA damage. Phosphorylation requires the FANCA-FANCC-FANCE-FANCF-FANCG protein complex, as well as the presence of RMI1.

DISEASE:

Defects in BLM are the cause of Bloom syndrome (BLM) [MIM:210900]. BLM is an autosomal recessive disorder characterized by proportionate pre- and postnatal growth deficiency, sun-sensitive telangiectatic hypo- and hyperpigmented skin, predisposition to malignancy, and chromosomal instability.

Similarity:

Belongs to the helicase family. RecQ subfamily.

Contains 1 helicase ATP-binding domain.

Contains 1 helicase C-terminal domain.

Contains 1 HRDC domain.

SWISS:

P54132

Gene ID:

641

Database links:

[Entrez Gene: 641](#)Human

[Entrez Gene: 12144](#)Mouse

[Omir: 604610](#)Human

[SwissProt: P54132](#)Human

[SwissProt: O88700](#)Mouse

[Unigene: 725208](#)Human

[Unigene: 12932](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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