

**Anti-BLM pS1290 (RABBIT) Antibody**  
**BLM phospho S1290 Antibody**  
**Catalog # ASR5701****Specification**

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**Anti-BLM pS1290 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	Anti-BLM pS1290 antibody is useful for ELISA, Immunohistochemistry, and Western Blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~159kDa corresponding to the appropriate cell lysate or extract.
Physical State	Lyophilized
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	Anti-BLM pS1290 affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the internal region of human Bloom syndrome protein.
Reconstitution Volume	100 µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Stabilizer	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

**Anti-BLM pS1290 (RABBIT) Antibody - Additional Information****Gene ID** 641**Purity**

Anti-BLM pS1290 was affinity purified from monospecific antiserum by immunoaffinity chromatography and is directed against the phosphorylated form of human S1290 residue. A BLAST analysis was used to suggest cross-reactivity with human and mouse based on 100% sequence homology. Cross-reactivity with BLM pS1290 from other sources has not been determined.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-BLM pS1290 (RABBIT) Antibody - Protein Information**

**Name** BLM

**Synonyms** RECQ2, RECQL3

**Function**

ATP-dependent DNA helicase that unwinds double-stranded (ds)DNA in a 3'-5' direction (PubMed:<a href="http://www.uniprot.org/citations/24816114" target="\_blank">24816114</a>, PubMed:<a href="http://www.uniprot.org/citations/25901030" target="\_blank">25901030</a>, PubMed:<a href="http://www.uniprot.org/citations/9388193" target="\_blank">9388193</a>, PubMed:<a href="http://www.uniprot.org/citations/9765292" target="\_blank">9765292</a>). Participates in DNA replication and repair (PubMed:<a href="http://www.uniprot.org/citations/12019152" target="\_blank">12019152</a>, PubMed:<a href="http://www.uniprot.org/citations/21325134" target="\_blank">21325134</a>, PubMed:<a href="http://www.uniprot.org/citations/23509288" target="\_blank">23509288</a>, PubMed:<a href="http://www.uniprot.org/citations/34606619" target="\_blank">34606619</a>). 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:<a href="http://www.uniprot.org/citations/21325134" target="\_blank">21325134</a>). Stimulates DNA 4-way junction branch migration and DNA Holliday junction dissolution (PubMed:<a href="http://www.uniprot.org/citations/25901030" target="\_blank">25901030</a>). Binds single-stranded DNA (ssDNA), forked duplex DNA and Holliday junction DNA (PubMed:<a href="http://www.uniprot.org/citations/20639533" target="\_blank">20639533</a>, PubMed:<a href="http://www.uniprot.org/citations/24257077" target="\_blank">24257077</a>, PubMed:<a href="http://www.uniprot.org/citations/25901030" target="\_blank">25901030</a>). Unwinds G-quadruplex DNA; unwinding occurs in the 3'-5' direction and requires a 3' single-stranded end of at least 7 nucleotides (PubMed:<a href="http://www.uniprot.org/citations/18426915" target="\_blank">18426915</a>, PubMed:<a href="http://www.uniprot.org/citations/9765292" target="\_blank">9765292</a>). Helicase activity is higher on G-quadruplex substrates than on duplex DNA substrates (PubMed:<a href="http://www.uniprot.org/citations/9765292" target="\_blank">9765292</a>). Telomeres, immunoglobulin heavy chain switch regions and rDNA are notably G-rich; formation of G-quadruplex DNA would block DNA replication and transcription (PubMed:<a href="http://www.uniprot.org/citations/18426915" target="\_blank">18426915</a>, PubMed:<a href="http://www.uniprot.org/citations/9765292" target="\_blank">9765292</a>). Negatively regulates sister chromatid exchange (SCE) (PubMed:<a href="http://www.uniprot.org/citations/25901030" target="\_blank">25901030</a>). Recruited by the KHD3L-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

**Anti-BLM pS1290 (RABBIT) Antibody - Protocols**

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

- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-BLM pS1290 (RABBIT) Antibody - Images****Anti-BLM pS1290 (RABBIT) Antibody - Background**

BLM pS1290 product is a member of the RecQ helicase protein family. The protein contains 1417 amino acids; including one ATP binding site, one DEAH box, and two putative nuclear localization signals, as well as phosphorylation sites. BLS protein is known to associate and be phosphorylated by the ATR (ataxia telangiectasia, rad3+) protein, in response to genetic stress. The Bloom's syndrome gene product is thought to play a role in the etiology of two major human health problems, each of which is a very common complication of Bloom's syndrome, namely cancer and diabetes. Anti-BLM pS1290 antibody is ideal for researchers interested in Epigenetics and Nuclear Signaling or DNA Damage & Repair research.