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Product datasheet for AP07900PU-N

BLM (1319-1335) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC
Recommended Dilution:	**ELISA:** 1/1000. **Immunohistochemistry on Paraffin Sections:** 10 µg/ml.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide from human BLM, aa 1319-1335
Specificity:	Recognises Bloom's Syndrome Protein (BLM) at aa 1319-1335.
Formulation:	Phosphate Buffered Saline PBS containing 0.09% Sodium Azide as preservative State: Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Dilute only prior to immediate use. Avoid cycles of freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	Bloom syndrome RecQ like helicase
Database Link:	Entrez Gene 641 Human P54132

View online »

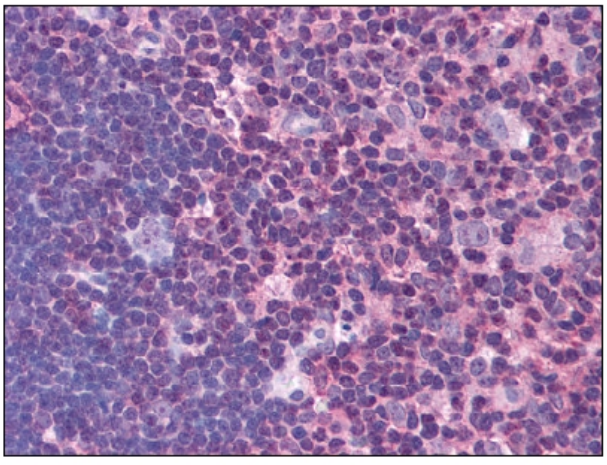
Background:

The Bloom's syndrome (BS) gene, BLM, plays an important role in the maintenance of genomic stability in somatic cells. The BLM protein is a 1417 amino acid peptide with homology to the RecQ helicases, a subfamily of DExH box-containing DNA and RNA helicases. The BLM protein has similarity to 2 other proteins that are members of the subfamily, namely the gene product encoded by RECQL2, also called the Werner syndrome gene (WRN), and the product of the yeast gene SGS1. These proteins may interact with topoisomerases, have 42 to 44% amino acid identity across the conserved helicase motifs, are of similar length and contain highly negatively charged N-terminal regions and highly positively charged C-terminal regions.
The BLM protein is located in the nucleus of normal human cells in the nuclear domain 10 (ND10) or promyelocytic leukemia nuclear (PML) bodies. These structures are punctate deposits of proteins disrupted upon viral infection and in certain human malignancies. BLM was found primarily in ND10 except during S phase, when it colocalized with the Werner syndrome gene product, WRN, in the nucleolus. The BLM protein is likely to be part of a DNA surveillance mechanism operating during S phase - BLM was found to be part of the BASC (BRCA1-associated genome surveillance) complex, which may serve as a sensor of abnormal DNA structures and/or as a regulator of the postreplication repair process.
Bloom syndrome cells show marked genomic instability; in particular, hyperrecombination between sister chromatids and homologous chromosomes - SCE (sister chromatid exchanges). In vitro BLM selectively binds Holliday junctions formed during genetic recombination and acts on recombination intermediates containing a Holliday junction to promote ATP-dependent branch migration. BLM may disrupt potentially recombinogenic molecules that arise at sites of stalled replication forks.

Synonyms:

Bloom syndrome protein, RecQ protein-like 3, DNA helicase, RecQ-like type 2, RECQ2, RECQL3

Product images:



Staining Blooms Syndrome Protein Blm antibody in Thymus by Immunohistochemistry using Formalin-Fixed Paraffin-Embedded (FFPE) tissue.