

# Product Data Sheet

# Inhibitors • Screening Libraries • Proteins

# DDX19A Protein, Human (His-SUMO)

Cat. No.:	HY-P71651		
Synonyms:	ATP dependent RNA helicase DDX19A; ATP-dependent RNA helicase DDX19A; DDX19 like protein; DEAD box protein 19A		
Species:	Human		
Source:	E. coli		
Accession:	Q9NUU7 (1M-478N)		
Gene ID:	55308		
Molecular Weight:	Approximately 70.0 kDa		

## PROPERTIES

AA Sequence						
	MATDSWALAV	DEQEAAVKSM	ΤΝΙQΙΚΕΕΚΥ	KADTNGIIKT		
	STTAEKTDEE	EKEDRAAQSL	LNKLIRSNLV	DNTNQVEVLQ		
	RDPNSPLYSV	KSFEELRLKP	QLLQGVYAMG	FNRPSKIQEN		
	ALPMMLAEPP	QNLIAQSQSG	TGKTAAFVLA	MLSRVEPSDR		
	YPQCLCLSPT	YELALQTGKV	IEQMGKFYPE	LKLAYAVRGN		
	KLERGQKISE	QIVIGTPGTV	LDWCSKLKFI	DPKKIKVFVL		
	DEADVMIATQ	GHQDQSIRIQ	RMLPRNCQML	LFSATFEDSV		
	WKFAQKVVPD	PNVIKLKREE	ΕΤΙΔΤΙΚQΥΥ	VLCSSRDEKF		
	QALCNLYGAI	ΤΙΑQΑΜΙFϹΗ	TRKTASWLAA	ELSKEGHQVA		
	LLSGEMMVEQ	RAAVIERFRE	GKEKVLVTTN	VCARGIDVEQ		
	VSVVINFDLP	VDKDGNPDNE	TYLHRIGRTG	RFGKRGLAVN		
	MVDSKHSMNI	LNRIQEHFNK	KIERLDTDDL	DEIEKIAN		
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.					
Appearance	Lyophilized powder.					
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.					
Endotoxin Level	<1 EU/µg, determined by LAL method.					
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O.					
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.					
Shipping	Room temperature in continental US; may vary elsewhere.					

# DESCRIPTION

### Background

BLM, an ATP-dependent DNA helicase, exhibits the capability to unwind both single- and double-stranded DNA in a 3'-5' direction. It actively participates in DNA replication and repair processes, playing a vital role in 5'-end resection of DNA during double-strand break repair by unwinding DNA and recruiting DNA2, which facilitates the cleavage of 5'-ssDNA. Additionally, BLM negatively regulates sister chromatid exchange and is involved in stimulating DNA 4-way junction branch migration as well as DNA Holliday junction dissolution. This multifaceted protein binds to single-stranded DNA, forked duplex DNA, and DNA Holliday junctions. Notably, BLM is recruited to DNA replication forks by the KHDC3-OOEP scaffold, where it is retained through TRIM25 ubiquitination, thus promoting the restart of stalled replication forks.

### Caution: Product has not been fully validated for medical applications. For research use only.

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