# Recombinant RMI2 protein (His tag)

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| **Catalog Number** | 540972 |
| **Synonyms** | hRMI2; BLM-associated protein of 18 kDa; BLAP18 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q96E14 |
| **Molecular Weight** | Predictes a molecular mass of 17.39 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band. |

## Product Information

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| **Sequence Region** | 2-147 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >88%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 2-147 aa (Q96E14) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant human RecQ-mediated genome instability protein 2 (hRMI2), also known as BLM-associated protein of 18 kDa (BLAP18), is a high-quality protein fragment (residues 2-147) designed for structural and biochemical studies. This fragment represents a stable and soluble unit of the protein, ideal for investigating its critical role in DNA repair and homologous recombination processes.<br>The full-length RMI2 protein, encoded by the RMI2 gene in Homo sapiens, is an essential component of the RMI complex, which plays a vital role in processing homologous recombination intermediates. It is crucial for regulating sister chromatid segregation, limiting DNA crossover, and maintaining the stability, localization, and function of key proteins such as BLM and TOP3A. Within the RMI complex, RMI2 facilitates the targeting of BLM to chromatin and stress-induced nuclear foci, and it supports mitotic phosphorylation of BLM. The protein is localized to the nucleus, where it colocalizes with BLM at nuclear DNA repair foci, underscoring its importance in genome stability and DNA damage response pathways. |