

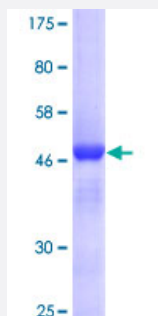
Full-Length

MRE11A (Human) Recombinant Protein (P01)

Catalog # H00004361-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human MRE11A full-length ORF (AAH05241, 1 a.a. - 206 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MSTADALDDENTFKILVATDIHLGFMEKDAVRGNDTFVTLDEILRLAQENEVDIFILLGGDLFHENKP SRKTLHTCLELLRKYCMGDRPVQFEILSDQSVNFGFSKFPWVNYQDGNLNISIPVFSIHGNHDDPT GADALCALDILSCAGFVNHFGRSMSVEKIDISPVLLQKGRTKIALYGLGSIPDERLYRMFVNKKVTM LRPKED
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	48.4
Interspecies Antigen Sequence	Mouse (94); Rat (94)
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — MRE11A

Entrez GeneID [4361](#)

GeneBank Accession# [BC005241](#)

Protein Accession# [AAH05241](#)

Gene Name MRE11A

Gene Alias ATLD, HNGS1, MRE11, MRE11B

Gene Description MRE11 meiotic recombination 11 homolog A (S. cerevisiae)

Omim ID [600814](#) [604391](#)

Gene Ontology [Hyperlink](#)

Gene Summary This gene encodes a nuclear protein involved in homologous recombination, telomere length maintenance, and DNA double-strand break repair. By itself, the protein has 3' to 5' exonuclease activity and endonuclease activity. The protein forms a complex with the RAD50 homolog; this complex is required for nonhomologous joining of DNA ends and possesses increased single-stranded DNA endonuclease and 3' to 5' exonuclease activities. In conjunction with a DNA ligase, this protein promotes the joining of noncomplementary ends in vitro using short homologies near the ends of the DNA fragments. This gene has a pseudogene on chromosome 3. Alternative splicing of this gene results in two transcript variants encoding different isoforms. [provided by RefSeq]

Other Designations AT-like disease|DNA recombination and repair protein|double-strand break repair protein MRE11A|endo/exonuclease Mre11|meiotic recombination 11 homolog A

Publication Reference

- [MRE11 facilitates the removal of human topoisomerase II complexes from genomic DNA.](#)

Lee KC, Padgett K, Curtis H, Cowell IG, Moiani D, Sondka Z, Morris NJ, Jackson GH, Cockell SJ, Tainer JA, Austin CA.

Biology Open 2012 Sep; 1(9):863.

Application: Func, WB-Re, Human, K562 cells

Pathway

- [Homologous recombination](#)
- [Non-homologous end-joining](#)

Disease

- [Adenocarcinoma](#)
- [Ataxia telangiectasia](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [DNA Damage](#)
- [Genetic Predisposition to Disease](#)
- [Glioma](#)
- [Hematologic Diseases](#)
- [Hodgkin Disease](#)
- [Kidney Failure](#)
- [Lymphoma](#)
- [Lymphoproliferative Disorders](#)

- [Multiple Sclerosis](#)
- [Neoplasms](#)
- [Occupational Diseases](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Spinocerebellar ataxia](#)
- [Urinary Bladder Neoplasms](#)
- [Waldenstrom Macroglobulinemia](#)
- [Werner syndrome](#)