10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ERI1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16515a

Specification

ERI1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q8IV48

ERI1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 90459

Other Names
3'-5' exoribonuclease 1, 31--, 3'-5' exonuclease ERI1, Eri-1 homolog, Histone mRNA 3'-end-specific exoribonuclease, Histone mRNA 3'-exonuclease 1, Protein 3'hExo, HEXO, ERI1, 3'EXO, THEX1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ERI1 Antibody (N-term) Blocking Peptide - Protein Information

Name ERI1

Synonyms 3'EXO, THEX1

Function
RNA exonuclease that binds to the 3'-end of histone mRNAs and degrades them, suggesting that it plays an essential role in histone mRNA decay after replication (PubMed:14536070, PubMed:16912046, PubMed:17135487). A 2' and 3'-hydroxyl groups at the last nucleotide of the histone 3'-end is required for efficient degradation of RNA substrates (PubMed:14536070, PubMed:16912046, PubMed:17135487). Also able to degrade the 3'-overhangs of short interfering RNAs (siRNAs) in vitro, suggesting a possible role as regulator of RNA interference (RNAi) (PubMed:14961122). Required for binding the 5'-ACCCA-3' sequence present in stem-loop structure (PubMed:14536070, PubMed:16912046). Able to bind

other mRNAs (PubMed:14536070, PubMed:16912046). Required for 5.8S rRNA 3'-end processing (By similarity). Also binds to 5.8s ribosomal RNA (By similarity). Binds with high affinity to the stem- loop structure of replication-dependent histone pre-mRNAs (PubMed:14536070, PubMed:17135487, PubMed:16912046). In vitro, does not have sequence specificity (PubMed:17135487). In vitro, has weak DNA exonuclease activity (PubMed:17135487). In vitro, shows biphasic kinetics such that there is rapid hydrolysis of the last three unpaired RNA nucleotides in the 39 flanking sequence followed by a much slower cleavage through the stem that occurs over a longer incubation period in the order of hours (PubMed:17135487).

Cellular Location
Cytoplasm. Nucleus. Nucleus, nucleolus

ERI1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ERI1 Antibody (N-term) Blocking Peptide - Images

ERI1 Antibody (N-term) Blocking Peptide - Background

RNA exonuclease that binds to the 3'-end of histone mRNAs and degrades them, suggesting that it plays an essential role in histone mRNA decay after replication. A 2' and 3'-hydroxyl groups at the last nucleotide of the histone 3'-end is required for efficient degradation of RNA substrates. Also able to degrade the 3'-overhangs of short interfering RNAs (siRNAs) in vitro, suggesting a possible role as regulator of RNA interference (RNAi). Requires for binding the 5'-ACCCA-3' sequence present in stem-loop structure. Able to bind other mRNAs. Required for 5.8S rRNA 3'-end processing. Also binds to 5.8s ribosomal RNA. Binds with high affinity to the stem-loop structure of replication-dependent histone pre-mRNAs.

ERI1 Antibody (N-term) Blocking Peptide - References

Rose, J. Phd, et al. Mol. Med. (2010) In press :Mullen, T.E., et al. Genes Dev. 22(1):50-65(2008)Kupsco, J.M., et al. RNA 12(12):2103-2117(2006)Yang, X.C., et al. J. Biol. Chem. 281(41):30447-30454(2006)Cheng, Y., et al. J. Mol. Biol. 343(2):305-312(2004)