

### **ERI1 Antibody (N-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16515A

### **Specification**

### **ERI1 Antibody (N-term) - Product Information**

Application WB,E
Primary Accession Q8IV48

Other Accession <u>Q5FVR4</u>, <u>Q7TMF2</u>, <u>NP\_699163.2</u>

Reactivity
Predicted
Host
Clonality
Isotype
Calculated MW
Antigen Region
Human
Mouse, Rat
Rabbit
Polyclonal
Rabbit IgG
40064
80-109

## ERI1 Antibody (N-term) - 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

# Target/Specificity

This ERI1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 80-109 amino acids from the N-terminal region of human ERI1.

#### **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

ERI1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### **ERI1 Antibody (N-term) - Protein Information**

Name ERI1 (<u>HGNC:23994</u>)



### 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, PubMed: 37352860). A 2' and 3'-hydroxyl groups at the last nucleotide of the histone 3'-end is required for efficient 3'-end histone mRNA exonuclease activity and 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 (PubMed:37352860). 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:16912046, PubMed: 17135487). 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). ERI1-mediated RNA metabolism plays a key role in chondrogenesis (PubMed: 37352860).

**Cellular Location** 

Cytoplasm. Nucleus. Nucleus, nucleolus

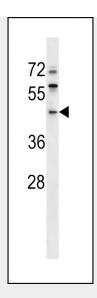
# ERI1 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### ERI1 Antibody (N-term) - Images





ERI1 Antibody (N-term) (Cat. #AP16515a) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the ERI1 antibody detected the ERI1 protein (arrow).

# ERI1 Antibody (N-term) - 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) - References

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Mullen, T.E., et al. Genes Dev. 22(1):50-65(2008)
Kupsco, J.M., et al. RNA 12(12):2103-2117(2006)
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