

ERI1 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50075**Specification**

ERI1 Antibody - Product Information

Application	WB
Primary Accession	Q8IV48
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40 KDa
Antigen Region	276-305

ERI1 Antibody - 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

Dilution

WB~~ 1:1000

Format

Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions

-20°C

ERI1 Antibody - 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).

target="_blank">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

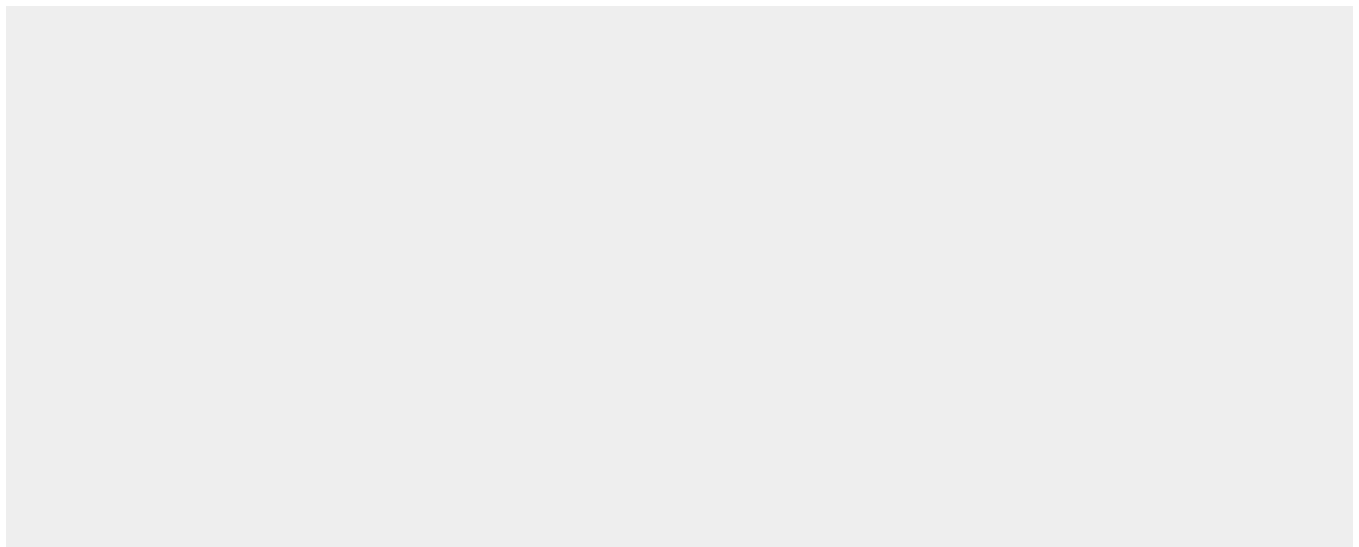
Cytoplasm. Nucleus. Nucleus, nucleolus

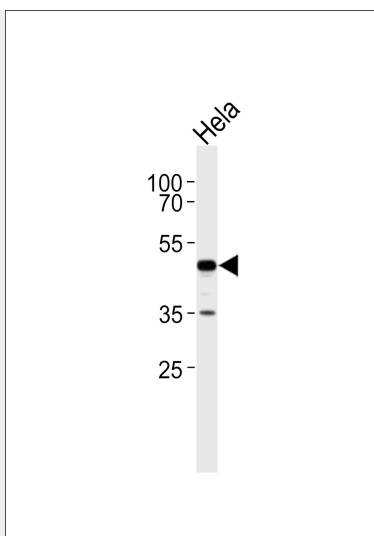
ERI1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ERI1 Antibody - Images





Western blot analysis of lysate from HeLa cell line, using ERI1 Antibody (C21254). C21254 was diluted at 1:1000. A goat anti-rabbit IgG H&L (HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35 µg.

ERI1 Antibody - 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 - References

Dominski Z., et al. *Mol. Cell* 12:295-305 (2003).
Ota T., et al. *Nat. Genet.* 36:40-45 (2004).
Bechtel S., et al. *BMC Genomics* 8:399-399 (2007).
Kennedy S., et al. *Nature* 427:645-649 (2004).
Yang X.-C., et al. *J. Biol. Chem.* 281:30447-30454 (2006).