

REXO2 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP17251c**Specification**

REXO2 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q9Y3B8](#)**REXO2 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 25996**Other Names**

Oligoribonuclease, mitochondrial, 31--, RNA exonuclease 2 homolog, Small fragment nuclease, REXO2, SFN, SMFN

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.

REXO2 Antibody (Center) Blocking Peptide - Protein Information**Name** REXO2**Synonyms** SFN, SMFN**Function**

3'-to-5' exonuclease that preferentially degrades DNA and RNA oligonucleotides composed of only two nucleotides (PubMed: [31588022](http://www.uniprot.org/citations/31588022), PubMed: [30926754](http://www.uniprot.org/citations/30926754), PubMed: [32365187](http://www.uniprot.org/citations/32365187), PubMed: [23741365](http://www.uniprot.org/citations/23741365)). Binds and degrades longer oligonucleotides with a lower affinity (PubMed: [31588022](http://www.uniprot.org/citations/31588022), PubMed: [30926754](http://www.uniprot.org/citations/30926754), PubMed: [32365187](http://www.uniprot.org/citations/32365187)). Plays dual roles in mitochondria, scavenging nanoRNAs (small RNA oligonucleotides of <5 nucleotides) that are produced by the degradosome and clearing short RNAs that are generated by RNA processing (PubMed: [31588022](http://www.uniprot.org/citations/31588022), PubMed: [30926754](http://www.uniprot.org/citations/30926754), PubMed: [32365187](http://www.uniprot.org/citations/32365187)). Essential for correct initiation of mitochondrial transcription,

degrading mitochondrial RNA dinucleotides to prevent RNA-primed transcription at non-canonical sites in the mitochondrial genome (PubMed:31588022). Essential for embryonic development (By similarity).

Cellular Location

Mitochondrion intermembrane space. Mitochondrion matrix. Mitochondrion. Cytoplasm. Nucleus

Tissue Location

Highly expressed in the heart and at lower levels in the lymph nodes, brain, lung, liver, spleen and thymus

REX02 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

REX02 Antibody (Center) Blocking Peptide - Images**REX02 Antibody (Center) Blocking Peptide - Background**

Nucleases are components of DNA and RNA metabolism that carry out functions in DNA repair, replication, and recombination and in RNA processing and degradation. SFN is a homolog of Orn, a 3-prime-to-5-prime exoribonuclease of E. coli that attacks the free 3-prime hydroxyl group on single-stranded RNA, releasing 5-prime mononucleotides in a sequential manner.

REX02 Antibody (Center) Blocking Peptide - References

Young Park, A., et al. Protein Expr. Purif. 57(2):180-187(2008) Rush, J., et al. Nat. Biotechnol. 23(1):94-101(2005) Ito, S., et al. Photochem. Photobiol. 80(2):281-285(2004) Simpson, J.C., et al. EMBO Rep. 1(3):287-292(2000) Nguyen, L.H., et al. J. Biol. Chem. 275(34):25900-25906(2000)