

**DOM3Z Antibody (N-term Y88) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP6635a****Specification**

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**DOM3Z Antibody (N-term Y88) Blocking Peptide - Product Information**Primary Accession [O77932](#)**DOM3Z Antibody (N-term Y88) Blocking Peptide - Additional Information**

Gene ID 1797

**Other Names**

Decapping and exoribonuclease protein, DXO, 3113-, 361-, Dom-3 homolog Z, DXO, DOM3L, DOM3Z, NG6

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP6635a](/products/AP6635a) was selected from the N-term region of human DOM3Z. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**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.

**DOM3Z Antibody (N-term Y88) Blocking Peptide - Protein Information****Name** DXO {ECO:0000303|PubMed:29601584, ECO:0000312|HGNC:HGNC:2992}**Function**

Decapping enzyme for NAD-capped RNAs: specifically hydrolyzes the nicotinamide adenine dinucleotide (NAD) cap from a subset of RNAs by removing the entire NAD moiety from the 5'-end of an NAD-capped RNA (PubMed: [28283058](http://www.uniprot.org/citations/28283058)). The NAD-cap is present at the 5'-end of some RNAs and snoRNAs (PubMed: [28283058](http://www.uniprot.org/citations/28283058)). In contrast to the canonical 5'-end N7 methylguanosine (m7G) cap, the NAD cap promotes mRNA decay (PubMed: [28283058](http://www.uniprot.org/citations/28283058)). Preferentially acts on NAD-capped transcripts in response to environmental stress (PubMed: [31101919](http://www.uniprot.org/citations/31101919)). Also acts as a non- canonical decapping enzyme that removes the entire cap structure of m7G capped or

incompletely capped RNAs and mediates their subsequent degradation (By similarity). Specifically degrades pre-mRNAs with a defective 5'-end m7G cap and is part of a pre-mRNA capping quality control (By similarity). Has decapping activity toward incomplete 5'- end m7G cap mRNAs such as unmethylated 5'-end-capped RNA (cap0), while it has no activity toward 2'-O-ribose methylated m7G cap (cap1) (PubMed:<a href="http://www.uniprot.org/citations/29601584" target="\_blank">29601584</a>). In contrast to canonical decapping enzymes DCP2 and NUDT16, which cleave the cap within the triphosphate linkage, the decapping activity releases the entire cap structure GpppN and a 5'-end monophosphate RNA (By similarity). Also has 5'-3' exoribonuclease activities: The 5'-end monophosphate RNA is then degraded by the 5'-3' exoribonuclease activity, enabling this enzyme to decap and degrade incompletely capped mRNAs (PubMed:<a href="http://www.uniprot.org/citations/29601584" target="\_blank">29601584</a>). Also possesses RNA 5'- pyrophosphohydrolase activity by hydrolyzing the 5'-end triphosphate to release pyrophosphates (By similarity). Exhibits decapping activity towards FAD-capped RNAs (PubMed:<a href="http://www.uniprot.org/citations/32374864" target="\_blank">32374864</a>). Exhibits decapping activity towards dpCoA-capped RNAs in vitro (By similarity).

**Cellular Location**

Nucleus

**Tissue Location**

Ubiquitously expressed.

**DOM3Z Antibody (N-term Y88) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**DOM3Z Antibody (N-term Y88) Blocking Peptide - Images****DOM3Z Antibody (N-term Y88) Blocking Peptide - Background**

The function of DOM3Z is unknown, but its ubiquitous expression and conservation in both simple and complex eukaryotes suggests that its gene may be a housekeeping gene.

**DOM3Z Antibody (N-term Y88) Blocking Peptide - References**

Lehner,B., Genome Res. 14 (7), 1315-1323 (2004)