

AK7 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7076d**Specification**

AK7 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession [O96M32](#)
Other Accession [NP_689540](#)

AK7 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 122481

Other Names

Adenylate kinase 7, AK 7, ATP-AMP transphosphorylase 7, AK7

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7076d](/products/AP7076d) was selected from the C-term region of human AK7. 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.

AK7 Antibody (C-term) Blocking Peptide - Protein Information

Name AK7

Function

Nucleoside monophosphate (NMP) kinase that catalyzes the reversible transfer of the terminal phosphate group between nucleoside triphosphates and monophosphates. Has highest activity toward AMP, and weaker activity toward dAMP, CMP and dCMP. Also displays broad nucleoside diphosphate kinase activity. Involved in maintaining ciliary structure and function.

Cellular Location

Cytoplasm, cytosol. Cell projection, cilium, flagellum Note=Detected along the full length of sperm flagellum, where it colocalizes with alpha-tubulin.

Tissue Location

Expressed in sperm and airway epithelial cells (at protein level).

AK7 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

AK7 Antibody (C-term) Blocking Peptide - Images

AK7 Antibody (C-term) Blocking Peptide - Background

The adenylate kinases (AK) are a family of structurally and functionally related enzymes that catalyze a similar reaction, $\text{MgNTP} + \text{AMP} = \text{MgNDP} + \text{ADP}$ ($\text{N} = \text{A or G}$). The AK enzymes are important for maintenance of homeostasis of the adenine and guanine nucleotide pools. AK1 is a cytosolic enzyme for which ATP is the substrate. AK2 catalyzes the same reaction as AK1, but it is localized in the mitochondrial intermembrane space. AK3 is present in the mitochondrial matrix and prefers GTP over ATP as the substrate.

AK7 Antibody (C-term) Blocking Peptide - References

Ota, T., et al., Nat. Genet. 36(1):40-45 (2004).