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AK7 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7076d

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96M32
Other Accession	Q95JP6, NP_689540
Reactivity	Human
Predicted	Monkey, Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15558
Calculated MW	82658
Antigen Region	629-656

Additional Information

Gene ID	122481
Other Names	Adenylate kinase 7, AK 7, ATP-AMP transphosphorylase 7, AK7
Target/Specificity	This AK7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 629-656 amino acids from the C-terminal region of human AK7.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	AK7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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).

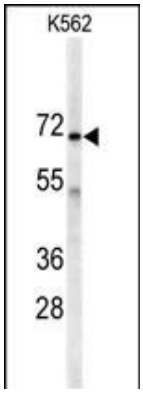
Background

The adenylate kinases (AK) are a family of structurally and functionally related enzymes that catalyze a similar reaction, MgNTP + AMP = MgNDP + ADP (N = 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.

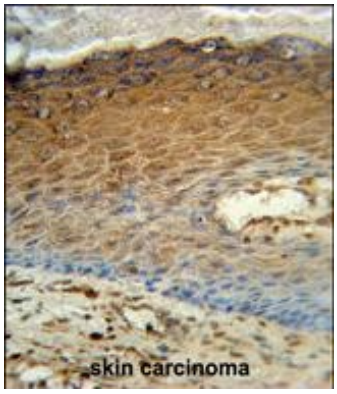
References

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

Images



Western blot analysis of anti-AK7 Antibody (C-term) (Cat.#AP7076d) in K562 cell line lysates (35ug/lane).AK7(arrow) was detected using the purified Pab.



AK7 Antibody (C-term) (Cat. #AP7076d) immunohistochemistry analysis in formalin fixed and paraffin embedded human skin carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the AK7 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.