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Zebrafish ak2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5619

Product Information

Application	FC, IHC, WB
Primary Accession	Q1L8L9
Reactivity	Zebrafish
Host	Rabbit
Clonality	Polyclonal
Calculated MW	26616
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	321793
Antigen Region	3~39
Other Names	Adenylate kinase 2, mitochondrial {ECO:0000255|HAMAP-Rule:MF_03168}, AK 2 {ECO:0000255|HAMAP-Rule:MF_03168}, 2743 {ECO:0000255|HAMAP-Rule:MF_03168}, ATP-AMP transphosphorylase 2 {ECO:0000255|HAMAP-Rule:MF_03168}, ATP:AMP phosphotransferase {ECO:0000255|HAMAP-Rule:MF_03168}, Adenylate monophosphate kinase {ECO:0000255|HAMAP-Rule:MF_03168}, ak2
Dilution	FC~~1:25 IHC~~1:100~500 WB~~1:2000
Target/Specificity	This Zebrafish ak2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 3~39 amino acids from the N-terminal region of Zebrafish ak2.
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	Zebrafish ak2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ak2
Function	Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. Plays an important role in cellular energy homeostasis and in adenine nucleotide metabolism. Adenylate kinase activity is critical for

	regulation of the phosphate utilization and the AMP de novo biosynthesis pathways. Plays a key role in hematopoiesis.
Cellular Location	Mitochondrion intermembrane space {ECO:0000255|HAMAP-Rule:MF_03168}

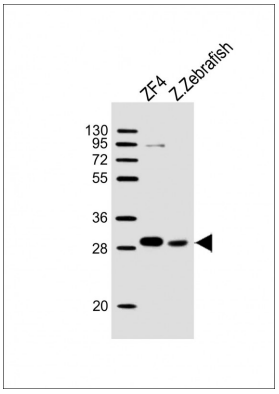
Background

Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. Plays an important role in cellular energy homeostasis and in adenine nucleotide metabolism. Adenylate kinase activity is critical for regulation of the phosphate utilization and the AMP de novo biosynthesis pathways. Plays a key role in hematopoiesis.

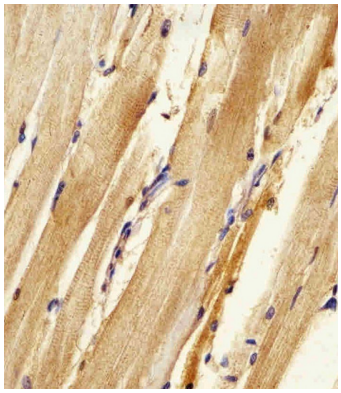
References

Howe K.,et al.Nature 496:498-503(2013).
Pannicke U.,et al.Nat. Genet. 41:101-105(2009).

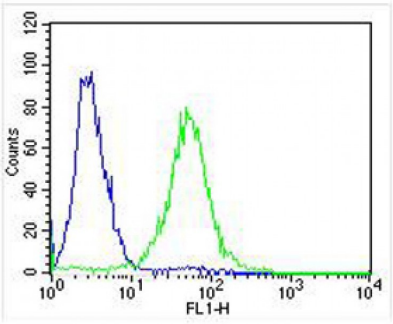
Images



All lanes : Anti-Zebrafish ak2 Antibody (N-term) at 1:2000 dilution Lane 1: ZF4 whole cell lysate Lane 2: Zebrafish lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 27 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AW5617 staining Zebrafish ak2 in zebra fish body tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing ZF4 cells stained with AW5617 (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AW5617, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the

same conditions. Acquisition of >10, 000 events was performed.