

Product Name: KD-Validated Adenylate Kinase 4 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01147

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 25.3kDa

Antigen Information

Gene Name	AK4 AK4; Adenylate Kinase 4; AK3L1; AK3; Adenylate Kinase 4, Mitochondrial; Adenylate Kinase 3-Like 1; AK 4; GTP:AMP Phosphotransferase AK4, Mitochondrial; Adenylate Kinase Isoenzyme 4, Mitochondrial; Epididymis Secretory Sperm Binding Protein; Nucleoside-Triphosphate-Adenylate Kinase; Mitochondrial Adenylate Kinase-3; GTP:AMP Phosphotransferase AK4; ATP-AMP Transphosphorylase; Adenylate Kinase 3-Like; Adenylate Kinase 3; EC 2.7.4.10; EC 2.7.4.6; EC 2.7.4.3; EC 2.7.4; AK3L2
Alternative Names	
Gene ID	205.0
SwissProt ID	P27144
Immunogen	A synthesized peptide derived from human Adenylate kinase 4

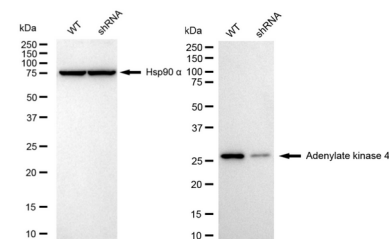
Background

This gene encodes a member of the adenylate kinase family of enzymes. The encoded protein is localized to the mitochondrial matrix. Adenylate kinases regulate the adenine and guanine nucleotide compositions within a cell by catalyzing the reversible transfer of phosphate group among these nucleotides. Five isozymes of adenylate kinase have been identified in vertebrates. Expression of these isozymes is tissue-specific and developmentally regulated. A pseudogene for this gene has been located on chromosome 17. Three transcript variants encoding the same protein have been identified for this gene. Sequence alignment suggests that the gene defined by NM_013410, NM_203464, and NM_001005353 is located on chromosome 1. [provided by RefSeq, Jul 2008]

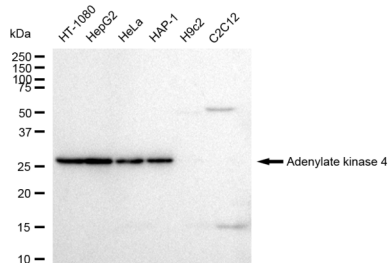
Research Area

Signal Transduction, Metabolism

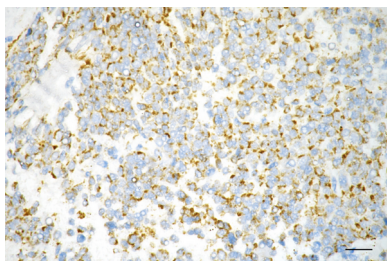
Image Data



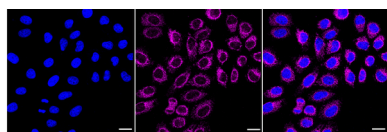
Western blotting analysis using adenylate kinase 4 antibody (KVA01147). Adenylate kinase 4 expression in wild type (WT) and adenylate kinase 4 (AK4) shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with adenylate kinase 4 antibody (KVA01147, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



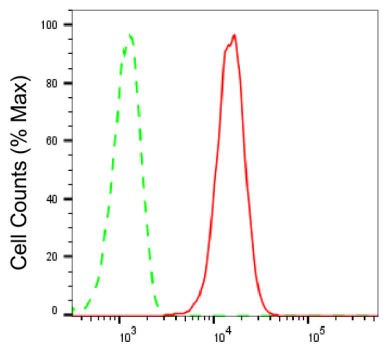
Western blotting analysis using Adenylate kinase 4 antibody (KVA01147). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Adenylate kinase 4 antibody (KVA01147, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using adenylate kinase 4 antibody (KVA01147, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HepG2 cells with Adenylate kinase 4 antibody (KVA01147, 1:1,000). Nuclei were stained blue with DAPI; Adenylate kinase 4 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Adenylate kinase 4-Alexa Fluor® 647

Flow cytometric analysis of Adenylate kinase 4 expression in HepG2 cells using Adenylate kinase 4 antibody (KVA01147, 1:2,000). Green, isotype control; red, Adenylate kinase 4.