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Anti-Adenylate Kinase 6 Antibody

Catalog # AP60736

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q9Y3D8
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20061

Additional Information

Gene ID	102157402
Other Names	CINAP; Adenylate kinase isoenzyme 6; AK6; Adrenal gland protein AD-004; Coilin-interacting nuclear ATPase protein; hCINAP; Dual activity adenylate kinase/ATPase; AK/ATPase
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Adenylate Kinase 6. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	AK6 {ECO:0000255|HAMAP-Rule:MF_03173}
Function	Broad-specificity nucleoside monophosphate (NMP) kinase that catalyzes the reversible transfer of the terminal phosphate group between nucleoside triphosphates and monophosphates. Also has ATPase activity (PubMed:15630091). Involved in the late cytoplasmic maturation steps of the 40S ribosomal particles, specifically 18S rRNA maturation (PubMed:27477389). While NMP activity is not required for ribosome maturation, ATPase activity is. Associates transiently with small ribosomal subunit protein uS11. ATP hydrolysis breaks the interaction with uS11. May temporarily remove uS11 from the ribosome to enable a conformational change of the ribosomal RNA that is needed for the final maturation step of the small ribosomal subunit (By similarity). Its NMP activity may have a role in nuclear energy homeostasis. AMP and dAMP are the preferred substrates, but

CMP and dCMP are also good substrates. IMP is phosphorylated to a much lesser extent. All nucleoside triphosphates ATP, GTP, UTP, CTP, dATP, dCTP, dGTP, and TTP are accepted as phosphate donors. CTP is the best phosphate donor, followed by UTP, ATP, GTP and dCTP. May be involved in regulation of Cajal body (CB) formation (PubMed:15630091).

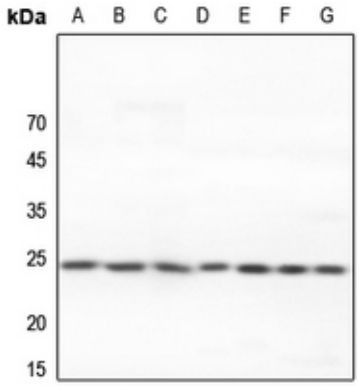
Cellular Location

Cytoplasm {ECO:0000255|HAMAP-Rule:MF_03173}. Nucleus, nucleoplasm {ECO:0000255|HAMAP-Rule:MF_03173}. Nucleus, Cajal body {ECO:0000255|HAMAP-Rule:MF_03173}. Note=Displays widespread diffuse nucleoplasmic distribution but not detected in nucleoli Detected in Cajal bodies but not in all cells. {ECO:0000255|HAMAP- Rule:MF_03173}

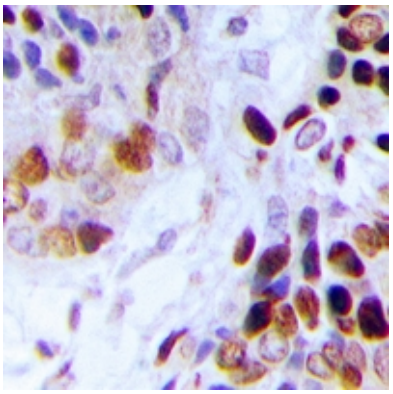
Tissue Location

Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, chorionic villi and the central nervous system.

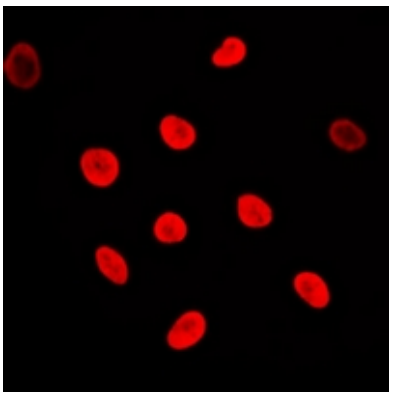
Images



Western blot analysis of Adenylate Kinase 6 expression in HEK293T (A), Hela (B), HepG2 (C), mouse brain (D), mouse lung (E), mouse heart (F), rat heart (G) whole cell lysates. (Predicted band size: 20 kD; Observed band size: 25 kD)

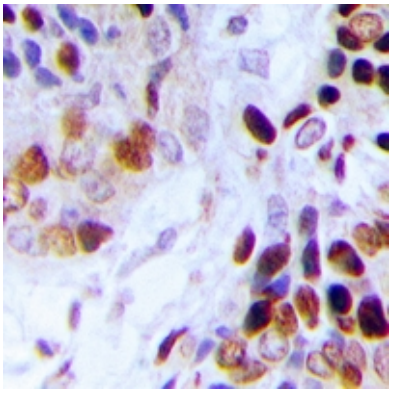


Immunohistochemical analysis of Adenylate Kinase 6 staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Adenylate Kinase 6 staining in Jurkat cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Immunohistochemical analysis of Adenylate Kinase 6 staining in human prostate cancer formalin fixed paraffin



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