

# AK6 Polyclonal Antibody

Catalog # AP68341

## Product Information

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC-P, IF, ICC, E  |
| Primary Accession | <a href="#">Q9Y3D8</a> |
| Reactivity        | Human, Mouse, Rat      |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Calculated MW     | 20061                  |

## Additional Information

|                    |                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID            | 102157402                                                                                                                                                                                                                                                                                                                                                         |
| Other Names        | TAF9; AK6; CINAP; AD-004; CGI-137; Adenylate kinase isoenzyme 6; ATP-AMP transphosphorylase 6; Coilin-interacting nuclear ATPase protein; hCINAP                                                                                                                                                                                                                  |
| Dilution           | WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications. IF~~1:50~200 ICC~~N/A E~~N/A |
| Format             | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.                                                                                                                                                                                                                                                                                     |
| Storage Conditions | -20°C                                                                                                                                                                                                                                                                                                                                                             |

## 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: <a href="#">15630091</a> ). Involved in the late cytoplasmic maturation steps of the 40S ribosomal particles, specifically 18S rRNA maturation (PubMed: <a href="#">27477389</a> ). 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.

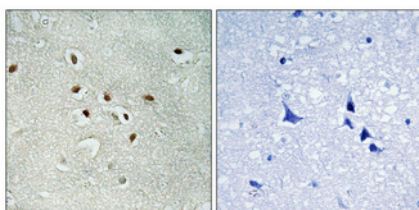
## Background

Broad-specificity nucleoside monophosphate (NMP) kinase that catalyzes the reversible transfer of the terminal phosphate group between nucleoside triphosphates and monophosphates. 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 have a role in nuclear energy homeostasis. Has also ATPase activity. May be involved in regulation of Cajal body (CB) formation.

## Images



Western Blot analysis of various cells using AK6 Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.

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