

**AAK1 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7861A****Specification**

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**AAK1 Antibody (N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q2M2I8</a>
Other Accession	<a href="#">F1SPM8</a> , <a href="#">F1MH24</a>
Reactivity	Human
Predicted	Bovine, Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	103885
Antigen Region	186-216

**AAK1 Antibody (N-term) - Additional Information****Gene ID** 22848**Other Names**

AP2-associated protein kinase 1, Adaptor-associated kinase 1, AAK1, KIAA1048

**Target/Specificity**

This AAK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 186-216 amino acids from the N-terminal region of human AAK1.

**Dilution**

WB~~1:1000

**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**

AAK1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**AAK1 Antibody (N-term) - Protein Information****Name** AAK1**Synonyms** KIAA1048

**Function** Regulates clathrin-mediated endocytosis by phosphorylating the AP2M1/mu2 subunit of the adaptor protein complex 2 (AP-2) which ensures high affinity binding of AP-2 to cargo membrane proteins during the initial stages of endocytosis (PubMed:[17494869](#), PubMed:[11877457](#), PubMed:[11877461](#), PubMed:[12952931](#), PubMed:[14617351](#), PubMed:[25653444](#)). Isoform 1 and isoform 2 display similar levels of kinase activity towards AP2M1 (PubMed:[17494869](#)). Preferentially, may phosphorylate substrates on threonine residues (PubMed:[11877457](#), PubMed:[18657069](#)). Regulates phosphorylation of other AP-2 subunits as well as AP-2 localization and AP-2-mediated internalization of ligand complexes (PubMed:[12952931](#)). Phosphorylates NUMB and regulates its cellular localization, promoting NUMB localization to endosomes (PubMed:[18657069](#)). Binds to and stabilizes the activated form of NOTCH1, increases its localization in endosomes and regulates its transcriptional activity (PubMed:[21464124](#)).

#### Cellular Location

Cell membrane {ECO:0000250|UniProtKB:F1MH24}; Peripheral membrane protein {ECO:0000250|UniProtKB:F1MH24}. Membrane, clathrin-coated pit. Presynapse {ECO:0000250|UniProtKB:P0C1X8}. Note=Active when found in clathrin-coated pits at the plasma membrane. In neuronal cells, enriched at presynaptic terminals. In non-neuronal cells, enriched at leading edge of migrating cells. {ECO:0000250|UniProtKB:P0C1X8}

#### Tissue Location

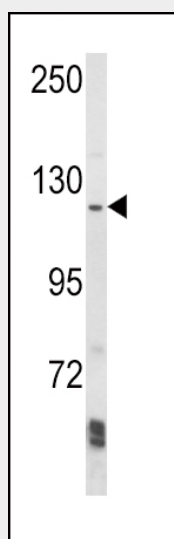
Detected in brain, heart and liver. Isoform 1 is the predominant isoform in brain.

### AAK1 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### AAK1 Antibody (N-term) - Images



Western blot analysis of AAK1 Antibody (N-term) (Cat. #AP7861a) in Ramos cell line lysates (35ug/lane). AAK1 (arrow) was detected using the purified Pab.

#### **AAK1 Antibody (N-term) - Background**

Adaptor-related protein complex 2 (AP-2 complexes) functions during receptor-mediated endocytosis to trigger clathrin assembly, interact with membrane-bound receptors, and recruit endocytic accessory factors. AAK1 is a member of the SNF1 subfamily of Ser/Thr protein kinases. The protein interacts with and phosphorylates a subunit of the AP-2 complex, which promotes binding of AP-2 to sorting signals found in membrane-bound receptors and subsequent receptor endocytosis. Its kinase activity is stimulated by clathrin.

#### **AAK1 Antibody (N-term) - References**

Henderson,D.M., Mol. Biol. Cell 18 (7), 2698-2706 (2007)  
Takahashi,T., Cancer Res. 66 (24), 11932-11937 (2006)  
Schmid,E.M., PLoS Biol. 4 (9), E262 (2006)