

**Akirin2 Antibody**  
**Catalog # ASC10767****Specification**

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**Akirin2 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q53H80</a>
Other Accession	<a href="#">EAW48578</a> , <a href="#">119568963</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	Akirin2 antibody can be used for detection of Akirin2 by Western blot at 1 µg/mL.

**Akirin2 Antibody - Additional Information**

Gene ID	55122
<b>Target/Specificity</b>	
AKIRIN2;	

**Reconstitution & Storage**

Akirin2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

Akirin2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Akirin2 Antibody - Protein Information**

**Name** AKIRIN2 {ECO:0000303|PubMed:18066067, ECO:0000312|HGNC:HGNC:21407}

**Function**

Molecular adapter that acts as a bridge between a variety of multiprotein complexes, and which is involved in embryonic development, immunity, myogenesis and brain development (PubMed:<a href="http://www.uniprot.org/citations/34711951" target="\_blank">34711951</a>). Plays a key role in nuclear protein degradation by promoting import of proteasomes into the nucleus: directly binds to fully assembled 20S proteasomes at one end and to nuclear import receptor IPO9 at the other end, bridging them together and mediating the import of pre-assembled proteasome complexes through the nuclear pore (PubMed:<a href="http://www.uniprot.org/citations/34711951" target="\_blank">34711951</a>). Involved in innate immunity by regulating the production of interleukin-6 (IL6) downstream of Toll-like receptor (TLR): acts by bridging the NF-kappa-B inhibitor NFKBIZ and the SWI/SNF complex, leading to promote induction of IL6 (By similarity). Also involved in adaptive immunity by promoting B-cell activation (By similarity). Involved in brain development: required for the survival and proliferation of cerebral cortical progenitor cells (By similarity). Involved in myogenesis: required for skeletal muscle formation and skeletal development, possibly by regulating

expression of muscle differentiation factors (By similarity). Also plays a role in facilitating interdigital tissue regression during limb development (By similarity).

#### Cellular Location

Nucleus. Cytoplasm {ECO:0000250|UniProtKB:B1AXD8} Membrane {ECO:0000250|UniProtKB:B1AXD8}. Note=Present mainly in the nuclear fraction, and at much lower level in the cytoplasmic and membrane fractions. {ECO:0000250|UniProtKB:B1AXD8}

#### Tissue Location

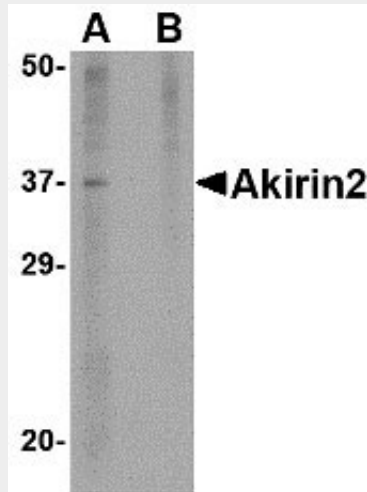
Widely expressed with the highest expression in peripheral blood leukocytes.

### Akirin2 Antibody - 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](#)

### Akirin2 Antibody - Images



Western blot analysis of Akirin2 in mouse brain tissue lysate with Akirin2 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.

### Akirin2 Antibody - Background

**Akirin2 Antibody:** The highly conserved, nuclear-localized Akirin1 and Akirin2 proteins critically regulate the transcription of NF-κB-dependent genes and are required for defense against Gram-negative bacteria in the immune deficiency and NF-κB pathways. Akirin1 is dispensable in the mouse, and neither knockout mice nor cells derived from them have obvious distinctive phenotypes. In contrast, Akirin2 is required for development in the mouse and knockout of both Akirin homologs in mice show that Akirin2 is required downstream of toll-like receptor (TLR), TNF-α and IL-1β signaling, and for the production of IL-6. Akirin2 is functionally closer to the single gene in

Drosophila, as the homozygous null D. melanogaster Akirin mutants show a similar, mid-to-early embryonic death.

### **Akirin2 Antibody - References**

Goto A, Matsushita K, Gesellchen V, et al. Akirins are highly conserved nuclear proteins required for NF-kappaB-dependent gene expression in drosophila and mice. Nat. Immunol.2008; 9:97-104.  
Beutler B and Moresco EM. Akirins versus infection. Nat. Immunol.2008; 9:7-9.  
Sutterwala FS and Flavell RA. Immunology: cascade into clarity. Nature2008; 451:254-5.  
Tanji T and Ip YT. Regulators of the Toll and Imd pathways in the Drosophila innate immune response. Trends Immunol.2005; 26:193-8.