

**Goat Anti-Acylglycerol kinase Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1023a****Specification**

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**Goat Anti-Acylglycerol kinase Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q53H12</a>
Other Accession	<a href="#">NP_060708</a> , <a href="#">55750</a> , <a href="#">69923 (mouse)</a>
Reactivity	Human
Predicted	Mouse
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	47137

**Goat Anti-Acylglycerol kinase Antibody - Additional Information****Gene ID** 55750**Other Names**

Acylglycerol kinase, mitochondrial, hAGK, 2.7.1.107, 2.7.1.94, Multiple substrate lipid kinase, HsMuLK, MuLK, Multi-substrate lipid kinase, AGK, MULK

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Acylglycerol kinase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Acylglycerol kinase Antibody - Protein Information****Name** AGK {ECO:0000303|PubMed:15939762, ECO:0000312|HGNC:HGNC:21869}**Function**

Lipid kinase that can phosphorylate both monoacylglycerol and diacylglycerol to form lysophosphatidic acid (LPA) and phosphatidic acid (PA), respectively (PubMed:&lt;a href="http://www.uniprot.org/citations/15939762" target="\_blank"&gt;15939762&lt;/a&gt;). Does not phosphorylate sphingosine (PubMed:&lt;a href="http://www.uniprot.org/citations/15939762" target="\_blank"&gt;15939762&lt;/a&gt;). Phosphorylates ceramide (By similarity). Phosphorylates

1,2-dioleoylglycerol more rapidly than 2,3- dioleoylglycerol (By similarity). Independently of its lipid kinase activity, acts as a component of the TIM22 complex (PubMed:<a href="http://www.uniprot.org/citations/28712724" target="\_blank">28712724</a>, PubMed:<a href="http://www.uniprot.org/citations/28712726" target="\_blank">28712726</a>). The TIM22 complex mediates the import and insertion of multi-pass transmembrane proteins into the mitochondrial inner membrane by forming a twin-pore translocase that uses the membrane potential as the external driving force (PubMed:<a href="http://www.uniprot.org/citations/28712724" target="\_blank">28712724</a>, PubMed:<a href="http://www.uniprot.org/citations/28712726" target="\_blank">28712726</a>). In the TIM22 complex, required for the import of a subset of metabolite carriers into mitochondria, such as ANT1/SLC25A4 and SLC25A24, while it is not required for the import of TIMM23 (PubMed:<a href="http://www.uniprot.org/citations/28712724" target="\_blank">28712724</a>). Overexpression increases the formation and secretion of LPA, resulting in transactivation of EGFR and activation of the downstream MAPK signaling pathway, leading to increased cell growth (PubMed:<a href="http://www.uniprot.org/citations/15939762" target="\_blank">15939762</a>).

### Cellular Location

Mitochondrion inner membrane; Peripheral membrane protein. Mitochondrion intermembrane space. Note=Localizes in the mitochondrion intermembrane space, where it associates with the inner membrane (PubMed:28712724). It is unclear whether the N-terminal hydrophobic region forms a transmembrane region or associates with the membrane without crossing it (PubMed:28712724, PubMed:28712726)

### Tissue Location

Highly expressed in muscle, heart, kidney and brain.

## Goat Anti-Acylglycerol kinase 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](#)

## Goat Anti-Acylglycerol kinase Antibody - Images



AF1023a (1 µg/ml) staining of Human Brain (Substantia nigra) lysate (35 µg protein in RIPA

buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **Goat Anti-Acylglycerol kinase Antibody - References**

Expression of autotaxin and acylglycerol kinase in prostate cancer: association with cancer development and progression. Nouh MA, et al. Cancer Sci, 2009 Sep. PMID 19549252.

Substrate chirality and specificity of diacylglycerol kinases and the multisubstrate lipid kinase.

Epand RM, et al. Biochemistry, 2007 Dec 11. PMID 18004883.

Functions of the multifaceted family of sphingosine kinases and some close relatives. Spiegel S, et al. J Biol Chem, 2007 Jan 26. PMID 17135245.

Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. Kimura K, et al. Genome Res, 2006 Jan. PMID 16344560.

Further characterization of mammalian ceramide kinase: substrate delivery and (stereo)specificity, tissue distribution, and subcellular localization studies. Van Overloop H, et al. J Lipid Res, 2006 Feb. PMID 16269826.