

Goat Anti-Acylglycerol kinase Antibody

Peptide-affinity purified goat antibody Catalog # AF1023a

Specification

Goat Anti-Acylglycerol kinase Antibody - Product Information

Application WB
Primary Accession Q53H12

Other Accession NP 060708, 55750, 69923 (mouse)

Reactivity
Predicted
Host
Clonality
Concentration

Human
Mouse
Goat
Polyclonal
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 lgG/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:15939762). Does not phosphorylate sphingosine (PubMed:15939762). 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:28712724, PubMed:28712726). 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:28712724, PubMed:28712726). 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:28712724). 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:15939762).

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

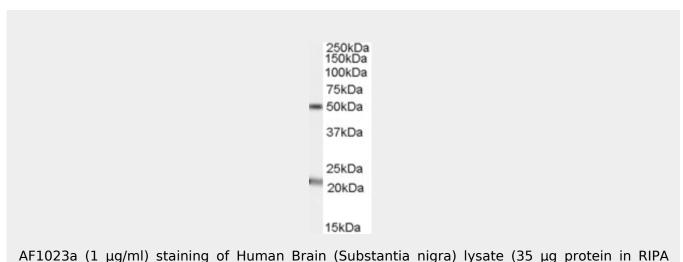
Highly expressed in muscle, heart, kidney and brain.

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 Cytomety
- Cell Culture

Goat Anti-Acylglycerol kinase Antibody - Images







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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.