

Catalog # AF1825a

Goat Anti-PICK1 Antibody Peptide-affinity purified goat antibody

## Specification

# **Goat Anti-PICK1 Antibody - Product Information**

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB <u>O9NRD5</u> <u>NP\_001034673</u>, <u>9463</u>, <u>18693 (mouse)</u>, <u>84591</u> (rat) Mouse, Rat Human, Pig, Dog, Cow Goat Polyclonal 100ug/200ul IgG 46600

# Goat Anti-PICK1 Antibody - Additional Information

Gene ID 9463

**Other Names** PRKCA-binding protein, Protein interacting with C kinase 1, Protein kinase C-alpha-binding protein, PICK1, PRKCABP

#### 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-PICK1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **Goat Anti-PICK1 Antibody - Protein Information**

Name PICK1

Synonyms PRKCABP

#### Function

Probable adapter protein that bind to and organize the subcellular localization of a variety of membrane proteins containing some PDZ recognition sequence. Involved in the clustering of



various receptors, possibly by acting at the receptor internalization level. Plays a role in synaptic plasticity by regulating the trafficking and internalization of AMPA receptors. May be regulated upon PRKCA activation. May regulate ASIC1/ASIC3 channel. Regulates actin polymerization by inhibiting the actin-nucleating activity of the Arp2/3 complex; the function is competitive with nucleation promoting factors and is linked to neuronal morphology regulation and AMPA receptor (AMPAR) endocytosis. Via interaction with the Arp2/3 complex involved in regulation of synaptic plasicity of excitatory synapses and required for spine shrinkage during long-term depression (LTD). Involved in regulation of astrocyte morphology, antagonistic to Arp2/3 complex activator WASL/N-WASP function.

### **Cellular Location**

Cytoplasm, perinuclear region. Membrane; Peripheral membrane protein. Membrane; Lipid-anchor. Postsynaptic density. Synapse, synaptosome. Cytoplasm, cytoskeleton. Note=Also membrane-associated, present at excitatory synapses.

Tissue Location Ubiquitous.

## **Goat Anti-PICK1 Antibody - Protocols**

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Goat Anti-PICK1 Antibody - Images



AF1825a (1  $\mu$ g/ml) staining of mouse brain lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

## Goat Anti-PICK1 Antibody - Background

The protein encoded by this gene contains a PDZ domain, through which it interacts with protein kinase C, alpha (PRKCA). This protein may function as an adaptor that binds to and organizes the



subcellular localization of a variety of membrane proteins. It has been shown to interact with multiple glutamate receptor subtypes, monoamine plasma membrane transporters, as well as non-voltage gated sodium channels, and may target PRKCA to these membrane proteins and thus regulate their distribution and function. This protein has also been found to act as an anchoring protein that specifically targets PRKCA to mitochondria in a ligand-specific manner. Three transcript variants encoding the same protein have been found for this gene.

# Goat Anti-PICK1 Antibody - References

Protein interacting with C alpha kinase 1 (PICK1) is involved in promoting tumor growth and correlates with poor prognosis of human breast cancer. Zhang B, et al. Cancer Sci, 2010 Jun. PMID 20384629.

Identification of a small-molecule inhibitor of the PICK1 PDZ domain that inhibits hippocampal LTP and LTD. Thorsen TS, et al. Proc Natl Acad Sci U S A, 2010 Jan 5. PMID 20018661.

Genetic association studies of methamphetamine use disorders: A systematic review and synthesis. Bousman CA, et al. Am J Med Genet B Neuropsychiatr Genet, 2009 Dec 5. PMID 19219857. Identification of new putative susceptibility genes for several psychiatric disorders by association

analysis of regulatory and non-synonymous SNPs of 306 genes involved in neurotransmission and neurodevelopment. Gratac S M, et al. Am J Med Genet B Neuropsychiatr Genet, 2009 Sep 5. PMID 19086053.

The BTB/kelch protein, KRIP6, modulates the interaction of PICK1 with GluR6 kainate receptors. Laezza F, et al. Neuropharmacology, 2008 Dec. PMID 18692513.