

## AKAP 79 Polyclonal Antibody

Catalog # AP68350

### Specification

#### AKAP 79 Polyclonal Antibody - Product Information

Application	WB, IHC-P, IF
Primary Accession	<a href="#">P24588</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal

#### AKAP 79 Polyclonal Antibody - Additional Information

##### Gene ID 9495

##### Other Names

AKAP5; AKAP79; A-kinase anchor protein 5; AKAP-5; A-kinase anchor protein 79 kDa; AKAP 79; H21; cAMP-dependent protein kinase regulatory subunit II high affinity-binding protein

##### Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.  
IHC-P~~N/A  
IF~~1:50~200

##### Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

##### Storage Conditions

-20°C

#### AKAP 79 Polyclonal Antibody - Protein Information

##### Name AKAP5

##### Synonyms AKAP79

##### Function

Multivalent scaffold protein that anchors the cAMP-dependent protein kinase/PKA to cytoskeletal and/or organelle-associated proteins, targeting the signal carried by cAMP to specific intracellular effectors (PubMed:<a href="http://www.uniprot.org/citations/1512224" target="\_blank">1512224</a>). Association with the beta2- adrenergic receptor (beta2-AR) not only regulates beta2-AR signaling pathway, but also the activation by PKA by switching off the beta2-AR signaling cascade. Plays a role in long term synaptic potentiation by regulating protein trafficking from the dendritic recycling endosomes to the plasma membrane and controlling both structural and functional plasticity at excitatory synapses (PubMed:<a href="http://www.uniprot.org/citations/25589740" target="\_blank">25589740</a>). In hippocampal pyramidal neurons, recruits KCNK2/TREK-1 channel at postsynaptic dense bodies

microdomains and converts it to a leak channel no longer sensitive to stimulation by arachidonic acid, acidic pH or mechanical stress, nor inhibited by Gq-coupled receptors but still under the negative control of Gs-coupled receptors (By similarity). Associates with ORAI1 pore-forming subunit of CRAC channels in Ca(2+) signaling microdomains where it recruits NFATC2/NFAT1 and couples store-operated Ca(2+) influx to calmodulin and calcineurin signaling and activation of NFAT-dependent transcriptional responses (PubMed:<a href="http://www.uniprot.org/citations/33941685" target="\_blank">33941685</a>).

#### **Cellular Location**

Postsynaptic recycling endosome membrane; Lipid- anchor. Cell projection, dendrite {ECO:0000250|UniProtKB:D3YVF0}. Postsynaptic cell membrane {ECO:0000250|UniProtKB:D3YVF0}; Lipid-anchor. Note=Associates with lipid rafts.

#### **Tissue Location**

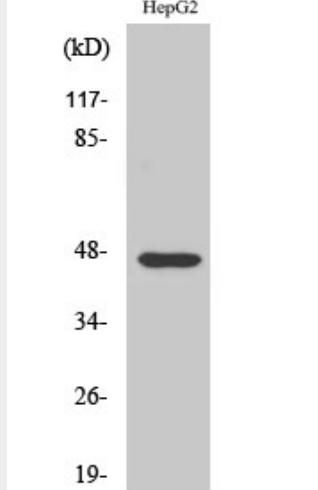
Predominantly in the cerebral cortex and the postsynaptic densities of the forebrain, and to a lesser extent in adrenal medulla, lung and anterior pituitary

#### **AKAP 79 Polyclonal 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](#)

#### **AKAP 79 Polyclonal Antibody - Images**



Western Blot analysis of various cells using AKAP 79 Polyclonal Antibody diluted at 1:1000

#### **AKAP 79 Polyclonal Antibody - Background**

May anchor the PKA protein to cytoskeletal and/or organelle-associated proteins, targeting the

signal carried by cAMP to specific intracellular effectors. Association with the beta2-adrenergic receptor (beta2-AR) not only regulates beta2-AR signaling pathway, but also the activation by PKA by switching off the beta2-AR signaling cascade.