

AP16328PU-N**Polyclonal Antibody to AKAP9 (C-term) - Aff - Purified****Alternate names:**

A-kinase anchor protein 350 kDa, A-kinase anchor protein 450 kDa, A-kinase anchor protein 9, AKAP120-like protein, AKAP350, AKAP450, KIAA0803, Protein hyperion, Protein kinase A-anchoring protein 9, Protein yotiao, entrosome- and Golgi-localized PKN-associated protein

Quantity:

0.1 mg

Concentration:

0.5 mg/ml

Background:

AKAP9 is a novel cytoskeletal protein specifically concentrated in the neuromuscular junction and neuronal synapses that interacts with specific splice variants of NMDA Receptor Subunit NR1 in a C1 exon cassette dependent manner. It has also been shown to physically attach the type I protein phosphatase (PP1) and the adenosine 3',5'-mono-phosphate (cAMP) dependent protein kinase (PKA) holoenzyme to NMDA receptors to regulate channel activity. NMDA receptors are involved with many important functions and dysfunctions of the nervous system, including synapse formation, synaptic plasticity, and excitotoxicity. AKAP9 research may lead to a clearer understanding of these neural processes by explaining how NMDA receptors are targeted to particular synapses, how this localization is regulated during development and synaptic activity, and how NMDA receptor activity is transduced into intracellular signals responsible for particular neuronal responses.

Uniprot ID:[Q99996](#)**NCBI:**[9606](#)**GeneID:**[10142](#)**Host:**

Goat

Immunogen:

Peptide with sequence C-SGSTTQFHAGMR, from the C-Terminus of the protein sequence according to NP_005742.4; NP_671714.1.

Genename: AKAP9

Format:

State: Liquid purified IgG fraction

Purification: Affinity Chromatography

Buffer System: Tris saline, pH~7.3

Preservatives: 0.02% Sodium Azide

Stabilizers: 0.5% BSA

Applications:

Peptide ELISA: 1/64000 (Detection Limit).

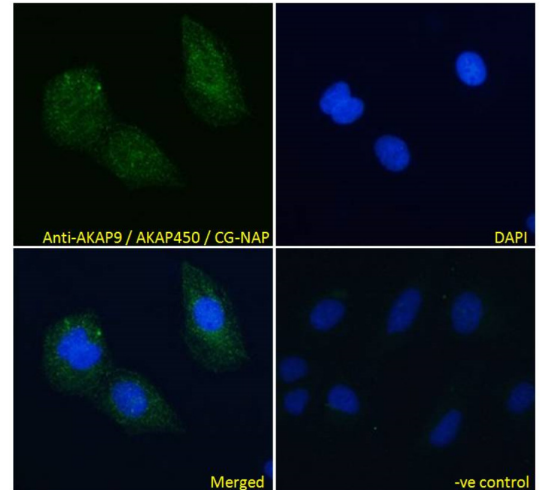
Western Blot: 1-3 µg/ml. This product has been successfully used by a customer, showing a band at approx 450kDa in lysates of cell line HepG2 (calculated MW of 453kDa according to NP_005742.4).

Immunofluorescence: 10 µg/ml. Strong expression of the protein seen in the cytoplasm of A431 and U2OS cells.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** This antibody is expected to recognise isoforms 2 and 3 (NP_005742.4; NP_671714.1 respectively). The isoforms Yotiao, AKAP350B and AKAP350C are not recognized.
- Species Reactivity:** **Tested:** Human.
Expected from sequence similarity: Mouse.
- Storage:** Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

Pictures: AP16328PU-N Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (4ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (4ug/ml).



AP16328PU-N Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (4ug/ml), showing cytoplasmic and Golgi apparatus staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (4ug/ml).

