

## Rabbit anti-Human, Mouse AKAP5 Polyclonal Antibody | anti-AKAP5 antibody

AKAP5 Antibody

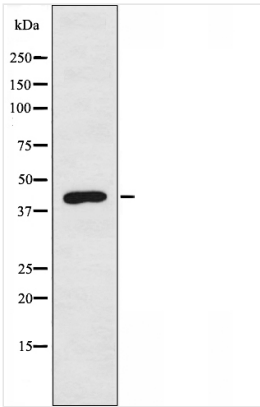
| CATALOG # | HOST   | REACTIVITY   | APPLICATIONS                                                 |
|-----------|--------|--------------|--------------------------------------------------------------|
| AAA323838 | Rabbit | Human, Mouse | ELISA, Immunocytochemistry, Immunofluorescence, Western Blot |

### PRODUCT SYNONYMS

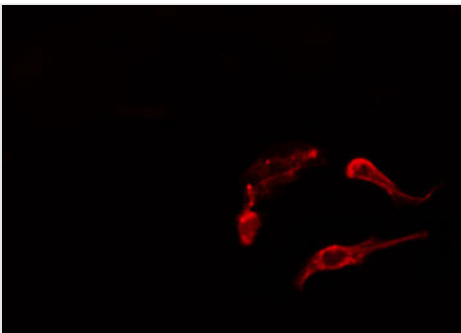
AKAP5; Polyclonal Antibody; AKAP5 Antibody; A kinase (PRKA) anchor protein 5; A kinase anchor protein 5; A kinase anchor protein 79kDa; A kinase anchoring protein 75/79; A-kinase anchor protein 5; A-kinase anchor protein 79 kDa; AKAP 5; AKAP 75; AKAP 79; AKAP-5; Akap5; AKAP5\_HUMAN; AKAP75; AKAP79; cAMP dependent protein kinase regulatory subunit II high affinity binding protein; cAMP-dependent protein kinase regulatory subunit II high affinity-binding protein; H21; anti-AKAP5 antibody

### PRODUCT SPECIFICATIONS

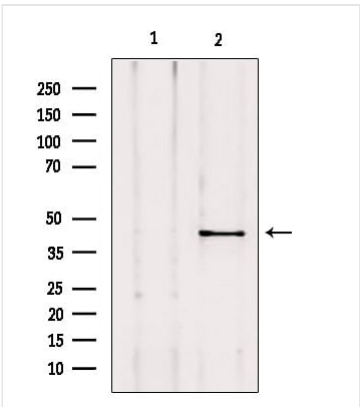
|                                                 |                                                                                                                                                               |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                        |
| Reactivity                                      | Human, Mouse                                                                                                                                                  |
| Clonality                                       | Polyclonal                                                                                                                                                    |
| Isotype                                         | IgG                                                                                                                                                           |
| Specificity                                     | AKAP5 antibody detects endogenous levels of total AKAP5                                                                                                       |
| Purity/Purification                             | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.                                                                 |
| Form/Format                                     | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                                                 |
| Concentration                                   | 1mg/ml (varies by lot)                                                                                                                                        |
| Sequence Length                                 | 427                                                                                                                                                           |
| Applicable Applications for anti-AKAP5 antibody | ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)                                                                                  |
| Immunogen                                       | A synthesized peptide                                                                                                                                         |
| Subcellular Location                            | Membrane. Associated with particulate fractions.                                                                                                              |
| Tissue Specificity                              | Predominantly in the cerebral cortex and the postsynaptic densities of the forebrain, and to a lesser extent in adrenal medulla, lung and anterior pituitary. |
| Predicted Cross Reactivity                      | <b>Pig, Horse, Dog</b>                                                                                                                                        |
| Similarity                                      | Pig (82%), Horse (80%), Dog (80%)                                                                                                                             |
| Conjugation                                     | Unconjugated                                                                                                                                                  |
| Preparation and Storage                         | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                                             |



**WB (Western Blot)**  
Western blot analysis of extracts from HepG2 cells using AKAP5 antibody.



**IF (Immunofluorescence)**  
AAA323838 staining HepG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



**WB (Western Blot)**  
Western blot analysis of extracts from mouse lung, using AKAP5 Antibody. Lane 1 was treated with the blocking peptide.

ADDITIONAL INFORMATION

|                                                     |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-AKAP5 antibody | Function:                         | May anchor the PKA protein to cytoskeletal and/or organelle-associated proteins, targeting the signal carried by cAMP to specific intracellular effectors. Association with to 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.                                                                                         |
|                                                     | Subunit Structure:                | Binding protein for dimer of the RII-beta regulatory subunit of cAMP-dependent protein kinase (PKA) and also for the protein kinase C (PKC) and the phosphatase calcineurin (PP2B). Each enzyme is inhibited when bound to the anchoring protein. Also binds the beta2-adrenergic receptor. Part of a complex containing AKAP5, ADCY5, ADCY6 AND PDE4C (By similarity). Interacts with ADCY8, and enhances its phosphorylation at lipid rafts. |
|                                                     | Post-translational Modifications: | Palmitoylation at Cys-36 and Cys-129 plays a key role in targeting to lipid rafts.                                                                                                                                                                                                                                                                                                                                                             |
|                                                     | Similarity:                       | RII-alpha binding site, predicted to form an amphipathic helix, could participate in protein-protein interactions with a complementary surface on the R-subunit dimer.The N-terminal region, which is highly basic, is required for interaction with calmodulin.                                                                                                                                                                               |
|                                                     |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |

NCBI AND UNIPROT INFORMATION

|                           |             |
|---------------------------|-------------|
| NCBI GI #                 | 158187521   |
| NCBI GeneID               | 9495        |
| NCBI Accession #          | NP_004848.3 |
| NCBI GenBank Nucleotide # | NM_004857.3 |

|                                  |                                      |
|----------------------------------|--------------------------------------|
| UniProt Accession #              | P24588; A2RRB8                       |
| Molecular Weight                 | Observed: 47 kD<br>Predicted: 48 kDa |
| NCBI Official Full Name          | A-kinase anchor protein 5            |
| NCBI Official Synonym Full Names | A-kinase anchoring protein 5         |
| NCBI Official Symbol             | AKAP5                                |
| NCBI Official Synonym Symbols    | H21; AKAP75; AKAP79                  |
| NCBI Protein Information         | A-kinase anchor protein 5            |
| UniProt Protein Name             | A-kinase anchor protein 5            |
| UniProt Gene Name                | <b>AKAP5</b>                         |
| UniProt Synonym Gene Names       | AKAP79; AKAP-5; AKAP 79              |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/akap5-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/323838>