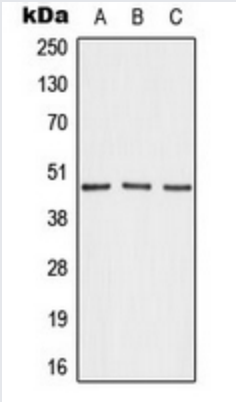
AKAP5 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	AKAP5, Polyclonal Antibody
Full Product Name	Rabbit anti-AKAP5 Antibody
Product Gene Name	anti-AKAP5 antibody
Product Synonym Names	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
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat, Monkey
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Concentration	1mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid repeated freeze/thaw cycles.
Molecular Weight	47,088 Da
Chromosome Location	Chromosome: 14; NC_000014.8 (64932217..64941221). Location: 14q23.3
OMIM	604688
3D Structure	ModBase 3D Structure for P24588
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human AKAP5. The exact sequence is proprietary.
Product Categories/Family for anti-AKAP5 antibody	Primary antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-AKAP5 antibody	Western Blot (WB), Immunoprecipitation (IP)
Application Notes for anti-AKAP5 antibody	WB: 1:500-1:1000 IP: 1:10-1:100
Related Product Information for anti-AKAP5 antibody	MBS4509425 is an antibody targeting AKAP5. Also known as Rabbit anti-AKAP5 Antibody. Reactive in Human, Mouse, Rat, Monkey. Host: Rabbit.
Other Notes	Small volumes of anti-AKAP5 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-AKAP5 antibody
Western blot analysis of AKAP5 expression in MDAMB231 (A), NIH3T3 (B), H9C2 (C) whole cell lysates.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AKAP5. It may not necessarily be applicable to this product.

NCBI GI #	158187521
NCBI GeneID	9495
NCBI Accession #	NP_004848.3
UniProt Primary Accession #	P24588
UniProt Secondary Accession #	D3YVF0; P24587
UniProt Related Accession #	P24588
GenBank Nucleotide #	NM_004857.3
NCBI Official Full Name	A-kinase anchor protein 5
NCBI Official Synonym Full Names	A kinase (PRKA) anchor protein 5
NCBI Official Symbol	AKAP5
NCBI Official Synonym Symbols	H21; AKAP75; AKAP79
UniProt Protein Name	A-kinase anchor protein 5
UniProt Synonym Protein Names	A-kinase anchor protein 79 kDa; AKAP 79; H21; cAMP-dependent protein kinase regulatory subunit II high affinity-binding protein
Protein Family	A-kinase anchor protein
UniProt Gene Name	AKAP5
UniProt Synonym Gene Names	AKAP79; AKAP-5; AKAP 79
UniProt Entry Name	AKAP5_HUMAN
NCBI Protein Information	A-kinase anchor protein 5; AKAP-5; AKAP 79; A-kinase anchor protein 79 kDa; A-kinase anchor protein, 79kDa; A-kinase anchoring protein 75/79; cAMP-dependent protein kinase regulatory subunit II high affinity binding protein; cAMP-dependent protein kinase
NCBI Summary for AKAP5	The A-kinase anchor proteins (AKAPs) are a group of structurally diverse proteins, which have the common function of binding to the regulatory subunit of protein kinase A (PKA) and confining the holoenzyme to discrete locations within the cell. This gene encodes a member of the AKAP family. The encoded protein binds to the RII-beta regulatory subunit of PKA, and also to protein kinase C and the phosphatase calcineurin. It is predominantly expressed in cerebral cortex and may anchor the PKA protein at postsynaptic densities (PSD) and be involved in the regulation of postsynaptic events. It is also expressed in T lymphocytes and may function to inhibit interleukin-2 transcription by disrupting calcineurin-dependent dephosphorylation of NFAT. [provided by RefSeq, Jul 2008]

UniProt Comments for AKAP5	AKAP5: 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. 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. Interacts with ADCY8, and enhances its phosphorylation at lipid rafts. Predominantly in the cerebral cortex and the postsynaptic densities of the forebrain, and to a lesser extent in adrenal medulla, lung and anterior pituitary. Protein type: Adaptor/scaffold Chromosomal Location of Human Ortholog: 14q23.3 Cellular Component: plasma membrane; cytosol Molecular Function: calmodulin binding; protein binding; protein kinase A binding; adenylate cyclase binding Biological Process: synaptic transmission; positive regulation of cAMP biosynthetic process; energy reserve metabolic process; signal transduction; regulation of insulin secretion; protein targeting
Research Articles on AKAP5	**1.** the direct anchoring of both PKA and AC to TRPV1 by AKAP79/150 facilitates the response to inflammatory mediators and may be critical in the pathogenesis of thermal hyperalgesia.
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