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AKAP5 Antibody (monoclonal) (M04)

Mouse monoclonal antibody raised against a partial recombinant AKAP5.
Catalog # AT1088a

Product Information

Application	WB
Primary Accession	P24588
Other Accession	NM_004857
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	1A9
Calculated MW	47088

Additional Information

Gene ID	9495
Other Names	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, AKAP5, AKAP79
Target/Specificity	AKAP5 (NP_004848.2, 334 a.a. ~ 427 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	AKAP5 Antibody (monoclonal) (M04) is for research use only and not for use in diagnostic or therapeutic procedures.

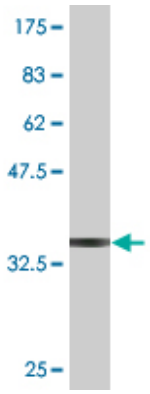
Background

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.

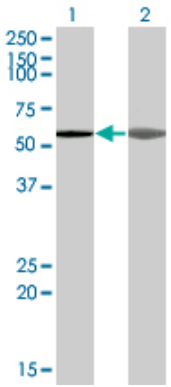
References

AKAP79/150 interacts with AC8 and regulates Ca2+-dependent cAMP synthesis in pancreatic and neuronal systems. Willoughby D, et al. J Biol Chem, 2010 Jun 25. PMID 20410303.G-protein-coupled receptor-associated A-kinase anchoring proteins AKAP5 and AKAP12: differential trafficking and distribution. Chen MH, et al. Cell Signal, 2009 Jan. PMID 18950703.Motor protein-dependent transport of AMPA receptors into spines during long-term potentiation. Correia SS, et al. Nat Neurosci, 2008 Apr. PMID 18311135.AKAP79 selectively enhances protein kinase C regulation of GluR1 at a Ca2+-calmodulin-dependent protein kinase II/protein kinase C site. Tavalin SJ. J Biol Chem, 2008 Apr 25. PMID 18305116.A kinase-anchoring protein 150 and calcineurin are involved in regulation of acid-sensing ion channels ASIC1a and ASIC2a. Chai S, et al. J Biol Chem, 2007 Aug 3. PMID 17548344.

Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.08 KDa) .



Western Blot analysis of AKAP5 expression in transfected 293T cell line by AKAP5 monoclonal antibody (M04), clone 1A9.

Lane 1: AKAP5 transfected lysate(47.1 KDa).
Lane 2: Non-transfected lysate.