

Datasheet for ABIN968592

anti-AKAP4 antibody (AA 555-675)



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Overview

Quantity:	50 µg
Target:	AKAP4
Binding Specificity:	AA 555-675
Reactivity:	Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This AKAP4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Mouse AKAP82 aa. 555-675
Clone:	25-AKAP82
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus)
Characteristics:	<ol style="list-style-type: none"> 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	AKAP4
Alternative Name:	AKAP82 (AKAP4 Products)
Background:	<p>The cAMP-dependent Protein Kinase (PKA) is compartmentalized within the cell. To maintain the localization of PKA, the regulatory subunits interact with specific anchoring proteins. Several proteins have been identified as PKA anchoring proteins and form a family named AKAP (A-Kinase Anchor Proteins). Fifteen of the AKAP proteins contain a consensus binding motif that allows interaction with the type II regulatory subunit (RII) of the PKA holoenzyme. In addition, three other AKAPs (D-AKAP1, D-AKAP2, and fsc1/AKAP82) can associate with the type I regulatory subunit (RI) of the PKA holoenzyme. AKAP82 was isolated as a component of the mouse sperm fibrous sheath. It is a dual specificity AKAP that contains an RII-binding domain (domain A, amino acids 219 to 232) and an RI-binding domain (domain B, amino acids 335-344). In mouse, pro-AKAP82 is synthesized as a 97 kDa precursor that is transported to the flagellum where proteolytic cleavage of the N-terminal 179 amino acids produces AKAP82. Assembly of AKAP82 into the fibrous sheath surrounding the axoneme of the sperm flagellum is thought to tether PKA close to the axoneme where it can regulate flagellar motility.</p>
Molecular Weight:	82 kDa

Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage: -20 °C

Storage Comment: Store undiluted at -20° C.

Publications

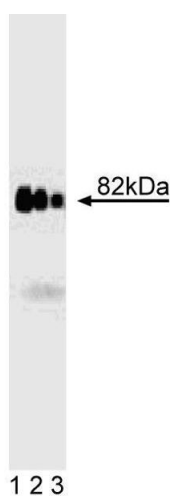
Product cited in: Edwards, Scott: "A-kinase anchoring proteins: protein kinase A and beyond." in: **Current opinion in cell biology**, Vol. 12, Issue 2, pp. 217-21, (2000) ([PubMed](#)).

Miki, Eddy: "Identification of tethering domains for protein kinase A type Ialpha regulatory subunits on sperm fibrous sheath protein FSC1." in: **The Journal of biological chemistry**, Vol. 273, Issue 51, pp. 34384-90, (1999) ([PubMed](#)).

Turner, Johnson, Haig-Ladewig, Gerton, Moss: "An X-linked gene encodes a major human sperm fibrous sheath protein, hAKAP82. Genomic organization, protein kinase A-RII binding, and distribution of the precursor in the sperm tail." in: **The Journal of biological chemistry**, Vol. 273, Issue 48, pp. 32135-41, (1998) ([PubMed](#)).

Fulcher, Mori, Welch, OBrien, Klapper, Eddy: "Characterization of Fsc1 cDNA for a mouse sperm fibrous sheath component." in: **Biology of reproduction**, Vol. 52, Issue 1, pp. 41-9, (1995) ([PubMed](#)).

Images



Western Blotting

Image 1. Western blot analysis of AKAP82 on rat testis lysate. Lane 1: 1:5000, lane 2: 1:10000, lane 3: 1:20000 dilution of anti-AKAP82.