

Datasheet for 600-401-X94**AKAP4 Antibody****Overview**

Description:	Anti-AKAP4 (RABBIT) Antibody - 600-401-X94
Item No.:	600-401-X94
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

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 (1). AKAP4, also known as hAKAP82, is a major sperm fibrous sheath protein that localizes to the entire length of the flagellum of human sperm (2). It has been suggested that AKAP4 plays multiple roles in sperm motility and regulation of signal transduction pathways (2). AKAP4 has also been postulated to be a potential biomarker for breast cancer (3).
Synonyms:	A-kinase anchor protein 4, AKAP-4, AKAP82, hAKAP82, CT99, FSC1, HI, PRKA4
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	AKAP4
Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-AKAP4 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 17 amino acid peptide near the N-terminus of human AKAP4.

Purity/Specificity: Anti-AKAP4 antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. AKAP4 antibody is human specific. At least three isoforms are known to exist; this antibody will detect the two longest isoforms.

Relevant Links:

- [UniProtKB - Q5JQC9](#)
- [GeneID - 8852](#)
- [NCBI - NP_003877](#)

Application Details

Tested Applications: ELISA, IF, IHC, WB

Application Note: Anti-AKAP4 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 100 kDa in Western Blots of specific cell lysates and tissues.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1:10,000-1:20,000

IF: 20 µg/mL

IHC: 5 µg/mL

WB: 1 - 2 µg/mL

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 1.0 mg/ml by UV absorbance at 280 nm

Buffer: 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2

Preservative: 0.02% (w/v) Sodium Azide

Stabilizer: None

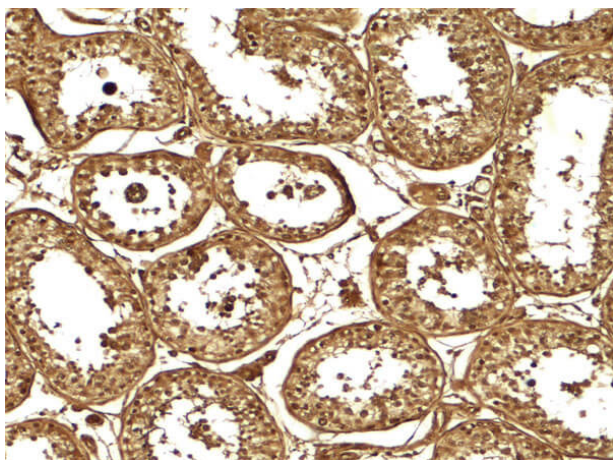
Shipping & Handling

Shipping Condition: Dry Ice

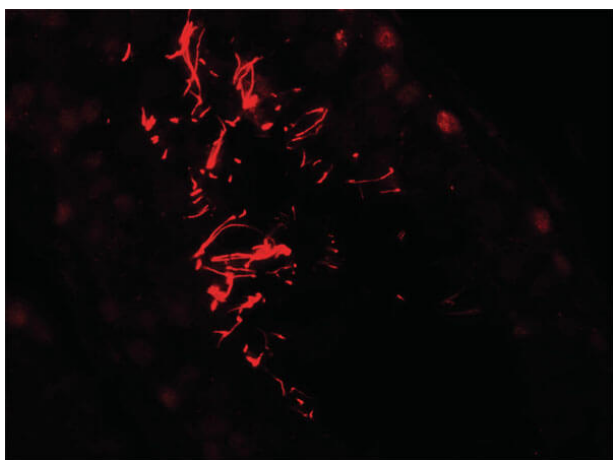
Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration:

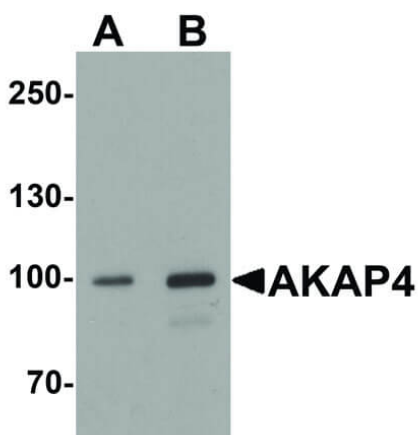
Expiration date is one (1) year from date of receipt.

Images**Immunohistochemistry**

Immunohistochemistry of Rabbit anti-AKAP4 antibody.
Tissue: human testis. Primary antibody: AKAP4 antibody at 5 $\mu\text{g/mL}$. Secondary antibody: Peroxidase rabbit secondary antibody at 1:5,000. Localization: AKAP4 is located on the flagellum. Staining: AKAP4 as precipitated brown signal.

**Immunofluorescence Microscopy**

Immunofluorescence Microscopy of Rabbit anti-AKAP4 antibody. Tissue: human testis. Primary antibody: AKAP4 antibody at 20 $\mu\text{g/mL}$. Secondary antibody: Fluorescein rabbit secondary antibody at 1:20,000. Localization: AKAP4 is located on the flagellum. Staining: AKAP4 as red fluorescent signal.

**Western Blot**

Western Blot of Rabbit anti-AKAP4 antibody. Lane A: human testis tissue lysate at 1 µg/mL. Lane B: human testis tissue lysate at 2 µg/mL. Primary antibody: AKAP4 antibody stored overnight at 4°C. Secondary antibody: Goat anti-rabbit HRP secondary antibody. Block: 5% BLOTTO. Predicted/Observed size: 94 kDa, 100 kDa for AKAP4.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.