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Anti-SPIN1 Antibody
Rabbit polyclonal antibody to SPIN1
Catalog # AP60517

Specification

Anti-SPIN1 Antibody - Product Information

Application	**WB, IF/IC, IHC**
Primary Accession	Q9Y657
Other Accession	Q61142
Reactivity	**Human, Mouse, Rat, Monkey, Pig, Chicken**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**29601**

Anti-SPIN1 Antibody - Additional Information

Gene ID 10927

Other Names
OCR; SPIN; Spindlin-1; Ovarian cancer-related protein; Spindlin1

Target/Specificity
Recognizes endogenous levels of SPIN1 protein.

Dilution
WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)
IF/IC~~N/A
IHC~~1:100~500

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-SPIN1 Antibody - Protein Information

Name SPIN1 (HGNC:11243)

Function
Chromatin reader that specifically recognizes and binds histone H3 both trimethylated at 'Lys-4' and 'Lys-9' (H3K4me3K9me3) and is involved in piRNA-mediated retrotransposon silencing during spermatogenesis (PubMed:33574238). Plays a key role in the initiation of the PIWIL4-piRNA pathway, a pathway that directs transposon DNA methylation and silencing in the male embryonic germ cells, by promoting recruitment of DNA methylation machinery to transposons: binds young, but not old, LINE1 transposons, which are specifically marked with H3K4me3K9me3, and promotes the

recruitment of PIWIL4 and SPOCD1 to transposons, leading to piRNA-directed DNA methylation (By similarity). Also recognizes and binds histone H3 both trimethylated at 'Lys-4' and asymmetrically dimethylated at 'Arg-8' (H3K4me3 and H3R8me2a) and acts as an activator of Wnt signaling pathway downstream of PRMT2 (PubMed:22258766, PubMed:29061846). In case of cancer, promotes cell cancer proliferation via activation of the Wnt signaling pathway (PubMed:24589551). Overexpression induces metaphase arrest and chromosomal instability. Localizes to active rDNA loci and promotes the expression of rRNA genes (PubMed:21960006). May play a role in cell- cycle regulation during the transition from gamete to embryo (By similarity). Involved in oocyte meiotic resumption, a process that takes place before ovulation to resume meiosis of oocytes blocked in prophase I: may act by regulating maternal transcripts to control meiotic resumption (By similarity).

Cellular Location
Nucleus. Nucleus, nucleolus

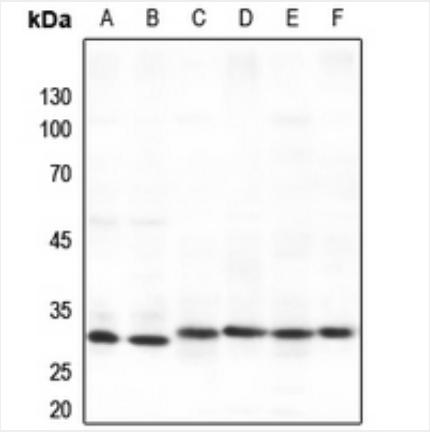
Tissue Location
Highly expressed in ovarian cancer tissues.

Anti-SPIN1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SPIN1 Antibody - Images



Western blot analysis of SPIN1 expression in HeLa (A), H1688 (B), mouse lung (C), mouse brain (D), rat lung (E), rat brain (F) whole cell lysates.

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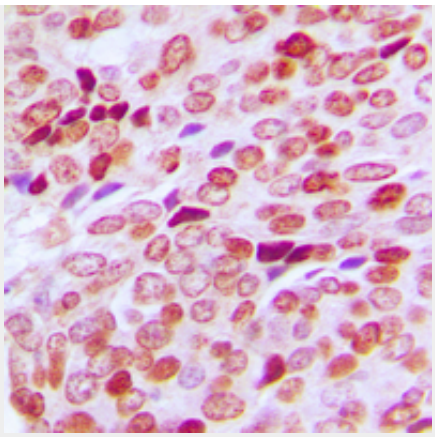
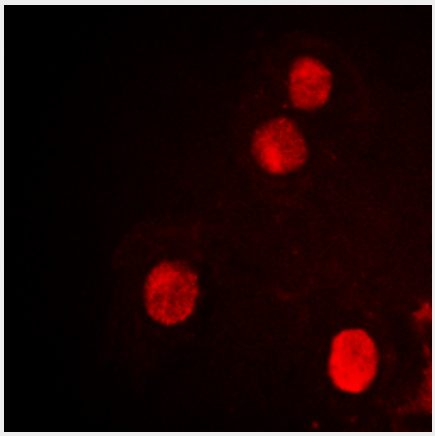


Immunohistochemical analysis of SPIN1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of SPIN1 staining in HEK293T cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Anti-SPIN1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human SPIN1. The exact sequence is proprietary.