

SPIN / SPIN1 Antibody (aa111-160) Rabbit Polyclonal Antibody Catalog # ALS15981

### **Specification**

# SPIN / SPIN1 Antibody (aa111-160) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW Dilution WB, IHC-P, E <u>O9Y657</u> Human, Mouse, Rat Rabbit Polyclonal 30kDa KDa WB~~1:1000 IHC-P~~N/A E~~N/A

## SPIN / SPIN1 Antibody (aa111-160) - Additional Information

Gene ID 10927

**Other Names** Spindlin-1, Ovarian cancer-related protein, Spindlin1, SPIN1, OCR, SPIN

**Target/Specificity** SPIN1 Antibody detects endogenous levels of total SPIN1 protein.

Reconstitution & Storage Store at -20°C for up to one year.

**Precautions** SPIN / SPIN1 Antibody (aa111-160) is for research use only and not for use in diagnostic or therapeutic procedures.

# SPIN / SPIN1 Antibody (aa111-160) - 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:<a href="http://www.uniprot.org/citations/33574238" target="\_blank">33574238</a>). 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:<a href="http://www.uniprot.org/citations/22258766" target="\_blank">22258766</a>, PubMed:<a href="http://www.uniprot.org/citations/29061846" target="\_blank">29061846</a>). In case of cancer, promotes cell cancer proliferation via activation of the Wnt signaling pathway (PubMed:<a

href="http://www.uniprot.org/citations/24589551" target="\_blank">24589551</a>). Overexpression induces metaphase arrest and chromosomal instability. Localizes to active rDNA loci and promotes the expression of rRNA genes (PubMed:<a

href="http://www.uniprot.org/citations/21960006" target="\_blank">21960006</a>). 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.

Volume 50 μl

# SPIN / SPIN1 Antibody (aa111-160) - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SPIN / SPIN1 Antibody (aa111-160) - Images



Western blot of extracts from HeLa cells, using SPIN1 Antibody.

# SPIN / SPIN1 Antibody (aa111-160) - Background

Chromatin reader that specifically 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 dowstream of PRMT2. 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. 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.

## SPIN / SPIN1 Antibody (aa111-160) - References

Peng Y.,et al.Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases. Zhang H.L.,et al.Chin. Sci. Bull. 45:909-914(2000). Gao Y.,et al.Biochem. Biophys. Res. Commun. 335:343-350(2005). Wiemann S.,et al.Genome Res. 11:422-435(2001). Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.