10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Spindlin-1 Polyclonal Antibody
Catalog # AP72568

Specification

Spindlin-1 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IF**
Primary Accession	Q9Y657
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**

Spindlin-1 Polyclonal Antibody - Additional Information

Gene ID 10927

Other Names
SPIN1; OCR; SPIN; Spindlin-1; Ovarian cancer-related protein

Dilution
WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
IHC-P~~N/A
IF~~1:50~200

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

Spindlin-1 Polyclonal 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

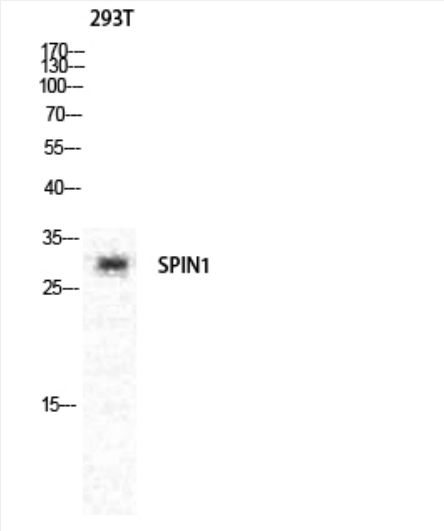
Tissue Location
Highly expressed in ovarian cancer tissues.

Spindlin-1 Polyclonal Antibody - Protocols

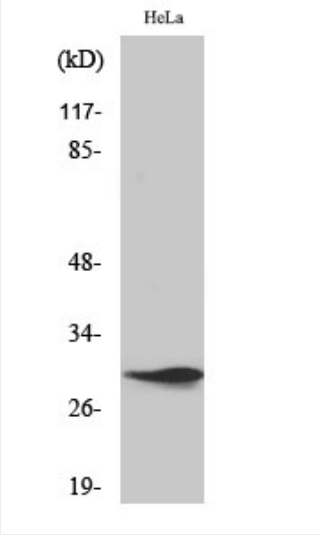
Provided below are standard protocols that you may find useful for product applications.

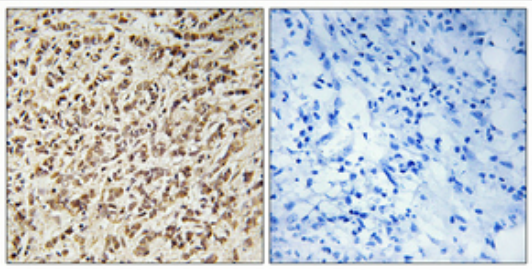
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

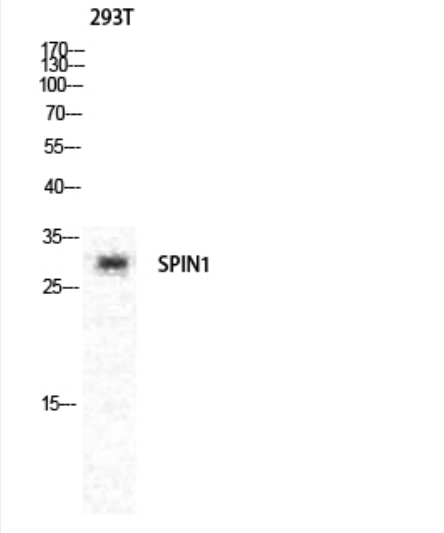
Spindlin-1 Polyclonal Antibody - Images



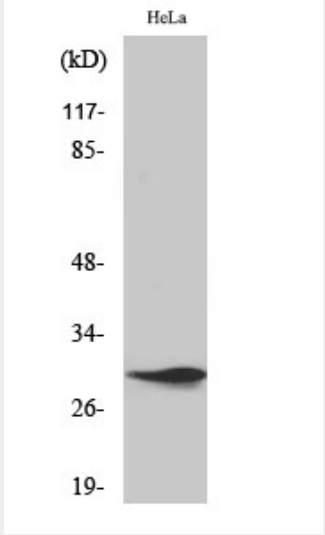
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

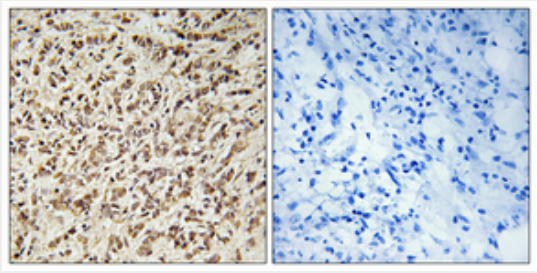






10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999





Spindlin-1 Polyclonal Antibody - 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 downstream 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.