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ZWINT Rabbit pAb

Catalog # AP99220

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O95229
Other Accession	O95229
Predicted	Rat, Pig, Human, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31293
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ZWINT
Epitope Specificity	85-170/277
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBUNIT	Interacts with ZW10 and MIS12. Interacts with the NDC80subunit of the NDC80 complex specifically during mitosis. Alsointeracts with CASC5, CETN3, DSN1 and PMF1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	ZWINT is a component of the MIS12 complex, which is required for kinetochore function and spindle checkpoint activity. ZWINT interacts with ZW10 and targets it to the kinetochore at prometaphase. ZWINT is detectable on the kinetochore till late anaphase. Inhibition of ZWINT expression results in chromosome missegregation, spindle checkpoint failure and, ultimately, cell death upon cytokinesis.

Additional Information

Gene ID	11130
Other Names	ZWINT_HUMAN; ZWINT; ZW10 interactor; ZW10-interacting protein 1 (Zwint-1); HZwint-1; KNTC2AP; SIP30; ZWINT1; ZW10 interacting kinetochore protein; SNAP25 interacting protein of 30 kDa
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ZWINT
Function	Acts as a component of the outer kinetochore KNL1 complex that serves as a docking point for spindle assembly checkpoint components and mediates microtubule-kinetochore interactions (PubMed:15094189, PubMed:15485811, PubMed:15824131, PubMed:16732327, PubMed:24530301, PubMed:27881301, PubMed:38459127, PubMed:38459128). Kinetochores, consisting of a centromere-associated inner segment and a microtubule-contacting outer segment, play a crucial role in chromosome segregation by mediating the physical connection between centromeric DNA and spindle microtubules (PubMed:15094189, PubMed:15485811, PubMed:16732327). The outer kinetochore is made up of the ten-subunit KMN network, comprising the MIS12, NDC80 and KNL1 complexes, and auxiliary microtubule-associated components; together they connect the outer kinetochore with the inner kinetochore, bind microtubules, and mediate interactions with mitotic checkpoint proteins that delay anaphase until chromosomes are bioriented on the spindle (PubMed:15094189, PubMed:15485811, PubMed:15824131, PubMed:16732327, PubMed:24530301, PubMed:38459127, PubMed:38459128). Targets the RZZ complex to the kinetochore at prometaphase (PubMed:15485811). Recruits MAD2L1 to the kinetochore, but is not required for BUB1B localization (By similarity). In addition to orienting mitotic chromosomes, it is also essential for alignment of homologous chromosomes during meiotic metaphase I (By similarity). In meiosis I, required to activate the spindle assembly checkpoint at unattached kinetochores to correct erroneous kinetochore-microtubule attachments (PubMed:15485811).
Cellular Location	Nucleus. Chromosome, centromere, kinetochore Note=Localizes to kinetochores from late prophase to anaphase (PubMed:15502821, PubMed:27881301). Localizes to kinetochores both during mitosis and meiosis (By similarity) {ECO:0000250|UniProtKB:Q9CQU5, ECO:0000269|PubMed:15502821, ECO:0000269|PubMed:27881301}

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