

ZWINT (FL-277): sc-67363

BACKGROUND

ZWINT (ZW10 interactor), also known as KNTC2AP or HZwint-1, is a 277 amino acid protein that is involved in kinetochore function. Localized to the cytoplasm during interphase and to kinetochores from late prophase to anaphase, ZWINT interacts with ZW10 (Zeste White 10) and functions to regulate the association between ZW10 and kinetochores. Additionally, ZWINT is part of a kinetochore complex composed of proteins such as MIS12 (MIND kinetochore complex component) and PMF-1 (polyamine-modulated factor 1) that work in concert to ensure proper kinetochore formation and spindle checkpoint activity. Defects in the gene encoding ZWINT are associated with the pathogenesis of Roberts syndrome, an autosomal recessive disorder characterized by growth retardation due to premature chromosome separation.

REFERENCES

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2. Wang, H., et al. 2004. Human Zwint-1 specifies localization of Zeste White 10 to kinetochores and is essential for mitotic checkpoint signaling. *J. Biol. Chem.* 279: 54590-54598.
3. Obuse, C., et al. 2004. A conserved Mis12 centromere complex is linked to heterochromatic HP1 and outer kinetochore protein Zwint-1. *Nat. Cell Biol.* 6: 1135-1141.
4. Musio, A., et al. 2004. Recapitulation of the Roberts syndrome cellular phenotype by inhibition of INCENP, ZWINT-1 and ZW10 genes. *Gene* 331: 33-40.
5. Hirose, H., et al. 2004. Implication of ZW10 in membrane trafficking between the endoplasmic reticulum and Golgi. *EMBO J.* 23: 1267-1278.
6. Emanuele, M.J., et al. 2005. Measuring the stoichiometry and physical interactions between components elucidates the architecture of the vertebrate kinetochore. *Mol. Biol. Cell* 16: 4882-4892.
7. Kops, G.J., et al. 2005. ZW10 links mitotic checkpoint signaling to the structural kinetochore. *J. Cell Biol.* 169: 49-60.
8. Lin, Y.T., et al. 2006. Hec1 sequentially recruits Zwint-1 and ZW10 to kinetochores for faithful chromosome segregation and spindle checkpoint control. *Oncogene* 25: 6901-6914.

CHROMOSOMAL LOCATION

Genetic locus: ZWINT (human) mapping to 10q21.1; Zwint (mouse) mapping to 10 B5.3.

SOURCE

ZWINT (FL-277) is a rabbit polyclonal antibody raised against amino acids 1-277 (deletion 228-229) representing full length ZWINT of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

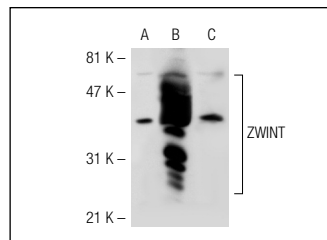
APPLICATIONS

ZWINT (FL-277) is recommended for detection of ZWINT of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

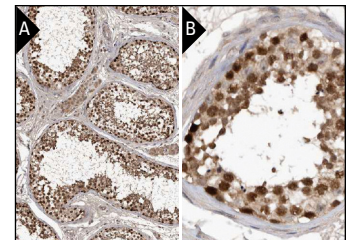
Suitable for use as control antibody for ZWINT siRNA (h): sc-63263, ZWINT siRNA (m): sc-63264, ZWINT shRNA Plasmid (h): sc-63263-SH, ZWINT shRNA Plasmid (m): sc-63264-SH, ZWINT shRNA (h) Lentiviral Particles: sc-63263-V and ZWINT shRNA (m) Lentiviral Particles: sc-63264-V.

Molecular Weight of ZWINT: 34 kDa.

Positive controls: ZWINT (h): 293T Lysate: sc-112460, ZWINT (m): 293T Lysate: sc-124836 or HeLa whole cell lysate: sc-2200.



ZWINT (FL-277): sc-67363. Western blot analysis of ZWINT expression in non-transfected 293T: sc-117752 (A), human ZWINT transfected 293T: sc-112460 (B) and A-431 (C) whole cell lysates.



ZWINT (FL-277): sc-67363. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis showing nuclear staining of cells in seminiferous ducts at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

DATA

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE



Try **ZWINT (A-7): sc-271646** or **ZWINT (G-12): sc-166730**, our highly recommended monoclonal alternatives to ZWINT (FL-277).

For research use only, not for use in diagnostic procedures.