

coilin (H1): sc-53979

BACKGROUND

Coilin is the primary protein of nuclear coiled (Cajal) bodies. Cajal bodies are small nuclear organelles and contain many proteins involved in RNA transcription and processing. Coilin is a self-associating protein with a nucleolar localization signal. Coilin is essential for the proper formation of Cajal bodies and for the recruitment of snRNP and survival motor neuron (SMN) complex proteins to Cajal bodies. Coilin directly binds SMN proteins in the recruitment process and competes with SmB' for SMN interactions. In the developing organism, Cajal bodies play a role in the assembly of the nucleolus. While the N-terminus of coilin contains the self-associating domain, the C-terminus of coilin regulates the number of Cajal bodies present in the cell. The gene encoding human coilin maps to chromosome 17q22-23.

REFERENCES

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2. Chan, E.K., et al. 1994. Structure, expression and chromosomal localization of human p80-coilin gene. *Nucleic Acids Res.* 22: 4462-4469.
3. Gall, J.G. 2000. Cajal bodies: the first 100 years. *Annu. Rev. Cell Dev. Biol.* 16: 273-300.
4. Hebert, M.D., et al. 2000. Self-association of coilin reveals a common theme in nuclear body localization. *Mol. Biol. Cell* 11: 4159-4171.
5. Tucker, K.E., et al. 2001. Residual Cajal bodies in coilin knockout mice fail to recruit Sm snRNPs and SMN, the spinal muscular atrophy gene product. *J. Cell Biol.* 154: 293-307.
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SOURCE

coilin (H1) is a mouse monoclonal antibody raised against isolated nuclei from the oocytes of *Xenopus laevis*.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

coilin (H1) is recommended for detection of coilin of *Xenopus laevis* 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

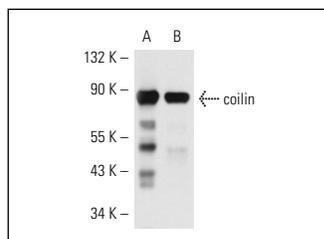
Molecular Weight of coilin: 80 kDa.

Positive Controls: A6 whole cell lysate or XLK-WG whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



coilin (H1): sc-53979. Western blot analysis of coilin expression in XLK-WG (A) and A6 (B) whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.