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SmcX (h3): 293T Lysate: sc-177954

BACKGROUND

SmcX, also known as JARID1C (Jumonji, AT rich interactive domain 1C), MRXJ, KDM5C or XE169, is a nuclear protein that contains one ARID domain, one JMJC domain, one JMJD domain and two PHD-type zinc fingers and belongs to the JARID1 histone demethylase family. Expressed ubiquitously with highest expression in brain and skeletal muscle, SmcX functions as a histone demethylase that removes methyl groups from lysine residues on Histone H3, thereby playing a role in the histone code, as well as transcriptional regulation and chromatin remodeling. SmcX binds iron and α -ketoglutarate as cofactors and can recruit histone deacetylases to neuron silencer elements, thus repressing the transcription of neuronal genes. Defects in the gene encoding SmcX are associated with X-linked mental retardation (XLMR), a condition characterized by cognitive impairment and a low IQ. Multiple isoforms of SmcX are expressed due to alternative splicing events.

REFERENCES

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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: JARID1C (human) mapping to Xp11.22.

PRODUCT

SmcX (h3): 293T Lysate represents a lysate of human SmcX transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

SmcX (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive SmcX antibodies.

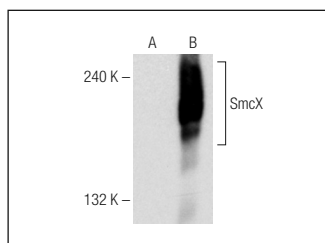
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SmcX (F-12): sc-373935 is recommended as a positive control antibody for Western Blot analysis of enhanced human SmcX expression in SmcX transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



SmcX (F-12): sc-373935. Western blot analysis of SmcX expression in non-transfected: sc-117752 (A) and human SmcX transfected: sc-177954 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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