



Protamine 2 (h): 293T Lysate: sc-112549

BACKGROUND

Protamines are small, arginine-rich (basic), nuclear proteins that mediate normal sperm head condensation and DNA stabilization. Mice, humans, and certain fish have 2 or more different protamines, whereas the sperm of bull, boar, rat, rabbit, guinea pig, and ram have one form of protamine. The majority of DNA in human sperm is bound to protamines with only a small proportion of DNA bound to histones in a way similar to active chromatin. The retention of histone association with sperm DNA with respect to protamine association to sperm DNA can change within as little as 400 bp of DNA, suggesting that there is fine control over haploid DNA organization. Protamines eventually replace histones late in the haploid phase of spermatogenesis. The human protamine 1 gene maps to chromosome 16p13.2 and encodes a 51 amino acid protein. The human protamine 2 gene maps to chromosome 16p13.2 and encodes a 102 amino acid protein.

REFERENCES

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6. Iuchi, Y., et al. 2003. Concerted changes in the YB2/Ryb-a protein and Protamine 2 messenger RNA in the mouse testis under heat stress. *Biol. Reprod.* 68: 129-135.
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CHROMOSOMAL LOCATION

Genetic locus: PRM2 (human) mapping to 16p13.13.

PRODUCT

Protamine 2 (h): 293T Lysate represents a lysate of human Protamine 2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Protamine 2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Protamine 2 antibodies. Recommended use: 10-20 μ l per lane.

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

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.

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.