SANTA CRUZ BIOTECHNOLOGY, INC.

Wee 1 (h): 293T Lysate: sc-116426

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The Power to Question

BACKGROUND

Phosphorylation of Cdc2 on Threonine 14 and Tyrosine 15 is required to maintain Cdc2 in an inactive state throughout the S and G_2 phases of the cell cycle. The human Wee 1 protein, WEE1Hu, encodes a tyrosine-specific protein kinase that phosphorylates Cdc2 on tyrosine 15. Myt 1, a member of the Wee 1 family of protein kinases, has been shown to phosphorylate Cdc2 on both Threonine 14 and Tyrosine 15 in a cyclin-dependent manner. Activity of both Wee 1 Hu and Myt 1 is regulated during the cell cycle, suggesting that both proteins play a role in mitotic control. Dephosphorylation of Cdc2 on Threonine 14 and Tyrosine 15 in late G_2 by Cdc25 then activates the Cdc2/cyclin B complex to allow entry into mitosis.

REFERENCES

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4. McGowan, C.H., et al. 1995. Human Wee 1 kinase inhibits cell division by phosphorylating p34Cdc2 exclusively on Tyr 15. EMBO J. 12: 75-85.
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8. Kiviharju-af Hällström, T.M., et al. 2007. Human prostate epithelium lacks Wee 1A-mediated DNA damage-induced checkpoint enforcement. Proc. Natl. Acad. Sci. USA 104: 7211-7216.
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CHROMOSOMAL LOCATION

Genetic locus: WEE1 (human) mapping to 11p15.4.

PRODUCT

Wee 1 (h): 293T Lysate represents a lysate of human Wee 1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

Wee 1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Wee 1 antibodies. Recommended use: 10-20 µl per lane.

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

RESEARCH USE

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

PROTOCOLS

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