SANTA CRUZ BIOTECHNOLOGY, INC.

Cdk9 (h): 293T Lysate: sc-174086

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The Power to Question

BACKGROUND

A family of proteins designated cyclin dependent kinases (Cdks) are critical regulators of cell cycle progression. Cdk family members, including Cdc2 p34, Cdk1–9, PISSLRE, KKIALRE, PITSLRE, and PCTAIRE 1-3 are constitutively expressed throughout the cell cycle. Cdc2 p34 activity peaks during mitosis and Cdk2 activity rises in late G_1 or early S phase. Cdk4 and Cdk6 are critically involved in G_1 to S phase progression. The functions of Cdk3, Cdk5β, PISSLRE, KKIALRE and PCTAIRE 1-3 are less well defined. Cdk9 (also designated PITALRE) has been shown to specifically phosphorylate the retinoblastoma protein. The more recently cloned *Drosophila* protein, P-TEFb, is thought to be the homolog of mammalian PITALRE. P-TEFb has been shown to be required for HIV Tat transcriptional activation.

REFERENCES

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7. Mancebo, H.S., Lee, G., Flygare, J., Tomassini, J., Luu, P., Zhu, Y., Peng, J., Blau, C., Hazuda, D., Price, D. and Flores, O. 1997. P-TEFb kinase is required for HIV TAT transcriptional activation *in vivo* and *in vitro*. Genes Dev. 11: 2633-2634.

CHROMOSOMAL LOCATION

Genetic locus: CDK9 (human) mapping to 9q34.11.

PRODUCT

Cdk9 (h): 293T Lysate represents a lysate of human Cdk9 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.

PROTOCOLS

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

APPLICATIONS

Cdk9 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Cdk9 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.