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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

Thymidine Kinase (h): 293 Lysate: sc-159024

BACKGROUND

Thymidine Kinase (TK1) is a highly conserved phosphotransferase that is present in most living cells. Thymidine Kinase catalyzes the phosphorylation reaction: deoxythymidine + ATP = deoxythymidine 5'-phosphate + ADP; it is thus involved in the reaction chain to introduce deoxythymidine into the DNA. Thymidine kinase is required for the action of many antiviral drugs, such as azidothymidine (AZT), and is is also used to select hybridoma cell lines in the production of monoclonal antibodies. Thymidine Kinase has many clinical applications as it is only present in anticipation of cell division. Because of this, Thymidine Kinase can be used as a proliferation marker in the diagnosis, treatment, and follow-up of malignant diseases, especially hematological malignancies. Thymidine Kinase may be observed as a monomer, dimer, trimer or tetramer.

REFERENCES

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3. Chen, S., McDougall, J.K., Creagan, R.P., Lewis, V. and Ruddle, F.H. 1977. Genetic homology between man and the chimpanzee: syntenic relationships of genes for galactokinase and Thymidine Kinase and adenovirus-12-induced gaps using chimpanzee-mouse somatic cell hybrids. Somatic Cell Genet. 2: 205-213.
4. Kozak, C.A. and Ruddle, F.H. 1978. Assignment of the genes for Thymidine Kinase and galactokinase to *Mus musculus* chromosome 11 and the preferential segregation of this chromosome in Chinese hamster/mouse somatic cell hybrids. Somatic Cell Genet. 3: 121-133.
5. Bradshaw, H.D. and Deininger, P.L. 1985. Human Thymidine Kinase gene: molecular cloning and nucleotide sequence of a cDNA expressible in mammalian cells. Mol. Cell. Biol. 4: 2316-2320.
6. Murphy, P.D., Kidd, J.R., Castiglione, C.M., Lin, P.F., Ruddle, F.H. and Kidd, K.K. 1986. A frequent polymorphism for the cytosolic Thymidine Kinase gene, TK1, (17q21- detected by the enzyme TaqI. Nucleic Acids Res. 14: 4381.
7. Flemington, E., Bradshaw, H.D., Traina-Dorge, V., Slagel, V. and Deininger, P.L. 1987. Sequence, structure and promoter characterization of the human Thymidine Kinase gene. Gene 52: 267-277.
8. Sherley, J.L. and Kelly, T.J. 1988. Human cytosolic Thymidine Kinase. Purification of the enzyme from HeLa cells. J. Biol. Chem. 263: 375-382.

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: TK1 (human) mapping to 17q25.3.

PRODUCT

Thymidine Kinase (m): 293 Lysate represents a lysate of mouse Thymidine Kinase transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

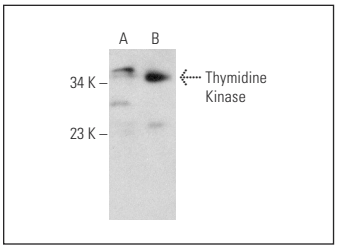
APPLICATIONS

Thymidine Kinase (m): 293 Lysate is suitable as a Western Blotting positive control for mouse reactive Thymidine Kinase antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Thymidine Kinase (3B3.E11): sc-56967 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Thymidine Kinase expression in Thymidine Kinase transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



Thymidine Kinase (3B3.E11): sc-56967. Western blot analysis of Thymidine Kinase expression in non-transfected: sc-110760 (**A**) and human Thymidine Kinase transfected: sc-159024 (**B**) 293 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.