SANTA CRUZ BIOTECHNOLOGY, INC.

CSNK1A1L (h3): 293T Lysate: sc-158403

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Casein kinase I (also designated CKI) and casein kinase II (CKII) compose a family of serine/threonine protein kinases which are present in all eukaryotes examined to date. Casein kinase I family members, which include casein kinase Iα, Iγ, Iδ and Iε, have been implicated in the control of cytoplasmic and nuclear processes, including DNA replication and repair, membrane trafficking, circadian rhythm, cell cycle progression, chromosome segregation, apoptosis and cellular differentiation. Casein kinase I isoform α-like (CSNK1A1L) is a 337 amino acid protein that shares a high degree of sequence similarity with the α isoform of casein kinase 1. CSNK1A1L resides in the cytoplasm and participates in the Wnt signaling pathway. By utilizing ATP within its protein kinase domain, CSNK1A1L phosphorylates a large number of proteins.

REFERENCES

1. Tuazon, P.T. and Traugh, J.A. 1991. Casein kinase I and II—multipotential serine protein kinases: structure, function and regulation. Adv. Second Messenger Phosphoprotein Res. 23: 123-164.
2. Graves, P.R., Haas, D.W., Hagedorn, C.H., DePaoliRoach, A.A. and Roach, P.J. 1993. Molecular cloning, expression and characterization of a 49 kDa casein kinase I isoform from rat testis. J. Biol. Chem. 268: 6394-6401.
3. Zhai, L., Graves, P.R., Robinson, L.C., Italiano, M., Culbertson, M.R., Rowles, J., Cobb, M.H., DePaoliRoach, A.A. and Roach, P.J. 1995. Casein kinase Iα subfamily. Molecular cloning, expression, and characterization of three mammalian isoforms and complementation of defects in the *Saccharomyces cerevisiae* YCK genes. J. Biol. Chem. 270: 12717-12724.
4. Fish, K.J., Cegielska, A., Getman, M.E., Landes, G.M. and Virshup, D.M. 1995. Isolation and characterization of human casein kinase Iε (CKI), a novel member of the CKI gene family. J. Biol. Chem. 270: 14875-14883.
5. Knippschild, U., Wolff, S., Giamas, G., Brockschmidt, C., Wittau, M., Würl, P.U., Eismann, T. and Stöter, M. 2005. The role of the casein kinase 1 (CK1) family in different signaling pathways linked to cancer development. Onkologie 28: 508-514.

CHROMOSOMAL LOCATION

Genetic locus: CSNK1A1L (human) mapping to 13q13.3.

PRODUCT

CSNK1A1L (h3): 293T Lysate represents a lysate of human CSNK1A1L 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

CSNK1A1L (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive CSNK1A1L antibodies.

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.