



casein kinase I γ 1 (h2): 293 Lysate: sc-158340

BACKGROUND

Casein kinase I (also designated CKI) and casein kinase II (also designated CKII) compose a family of serine/threonine protein kinases which are present in all eukaryotes examined to date. CKI family members, which include CKI α , γ , ϵ and δ , have been implicated in the control of cytoplasmic and nuclear processes, including DNA replication and repair. CKII is usually expressed as a tetrameric complex consisting of either an α 2 β 2 or an $\alpha\alpha'\beta$ 2 structure. The α catalytic subunit is stimulated by the β regulatory subunit, which undergoes autophosphorylation. CKII activity is high in the cytosol and nucleus of proliferating and differentiating cells. CKII is known to phosphorylate more than 100 different substrates including nuclear oncoproteins, transcription factors and enzymes involved in DNA metabolism.

REFERENCES

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2. Tuazon, P.T., et al. 1991. Casein kinase I and II—multipotential serine protein kinases: structure, function and regulation. *Adv. Second Messenger Phosphoprotein Res.* 23: 123-164.
3. Litchfield, D.W., et al. 1993. Casein kinase II in signal transduction and cell cycle regulation. *Mol. Cell. Biochem.* 127: 187-199.
4. Graves, P.R., et al. 1993. Molecular cloning, expression, and characterization of a 49 kDa casein kinase I isoform from rat testis. *J. Biol. Chem.* 268: 6394-6401.
5. Fish, K.J., et al. 1995. Isolation and characterization of human casein kinase I ϵ (CKI), a novel member of the CKI gene family. *J. Biol. Chem.* 270: 14875-14883.

CHROMOSOMAL LOCATION

Genetic locus: CSNK1G1 (human) mapping to 15q22.31.

PRODUCT

casein kinase I γ 1 (h2): 293 Lysate represents a lysate of human casein kinase I γ 1 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

casein kinase I γ 1 (h2): 293 Lysate is suitable as a Western Blotting positive control for human reactive casein kinase I γ 1 antibodies. Recommended use: 10-20 μ l per lane.

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