

# Produktinformation



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#### SANTA CRUZ BIOTECHNOLOGY, INC.

# casein kinase Iγ1 (m): 293T Lysate: sc-119014



#### 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. Casein kinase I family members, which include casein kinase  $|\alpha, |\gamma, |\delta$  and  $|\epsilon$ , have been implicated in the control of cytoplasmic and nuclear processes, including DNA replication and repair. Casein kinase II is usually expressed as a tetrameric complex consisting of either an  $\alpha 2\beta 2$  or an  $\alpha \alpha'\beta 2$  structure. The  $\alpha$  catalytic subunit is stimulated by the  $\beta$  regulatory subunit, which undergoes autophosphorylation. Casein kinase II activity is high in the cytosol and nucleus of proliferating and differentiating cells. Casein kinase II is known to phosphorylate more than 100 different substrates including nuclear oncoproteins, transcription factors and enzymes involved in DNA metabolism.

#### REFERENCES

- 1. Lozeman, F.J., et al. 1990. Isolation and characterization of human cDNA clones encoding the  $\alpha$  and the  $\alpha'$  subunits of casein kinase II. Biochem. 29: 8436-8447.
- 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.
- Litchfield, D.W., et al. 1993. Casein kinase II in signal transduction and cell cycle regulation. Mol. Cell. Biochem. 127-128: 187-199.
- 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.
- Fish, K.J., et al. 1995. Isolation and characterization of human casein kinase Iε (CKI), a novel member of the CKI gene family. J. Biol. Chem. 270: 14875-14883.
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- Allende, J.E., et al. 1995. Protein kinases. 4. Protein kinase CKII: an enzyme with multiple substrates and a puzzling regulation. FASEB J. 9: 313-323.

#### CHROMOSOMAL LOCATION

Genetic locus: Csnk1g1 (mouse) mapping to 9 C.

#### PRODUCT

casein kinase  $I\gamma1$  (m): 293T Lysate represents a lysate of mouse casein kinase  $I\gamma1$  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

casein kinase ly1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive casein kinase ly1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

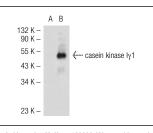
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

casein kinase I $\gamma$ 1 (A-6): sc-133206 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse casein kinase I $\gamma$ 1 expression in casein kinase I $\gamma$ 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### DATA



casein kinase I<sub>Y</sub>1 (A-6): sc-133206. Western blot analysis of casein kinase I<sub>Y</sub>1 expression in non-transfected: sc-117752 (**A**) and mouse casein kinase I<sub>Y</sub>1 transfected: sc-119014 (**B**) 2937 whole cell Iysates.

#### **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.