

# casein kinase Iε (H-60): sc-25423

## 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 CKIα, 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<sub>2</sub>β<sub>2</sub> or an αα'β<sub>2</sub> 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.

## CHROMOSOMAL LOCATION

Genetic locus: CSNK1E (human) mapping to 22q13.1; Csnk1e (mouse) mapping to 15 E1.

## SOURCE

casein kinase Iε (H-60) is a rabbit polyclonal antibody raised against amino acids 301-360 mapping near the C-terminus of casein kinase Iε of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

casein kinase Iε (H-60) is recommended for detection of casein kinase Iε (H-60) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

casein kinase Iε (H-60) is also recommended for detection of casein kinase Iε (H-60) in additional species, including equine, canine and porcine.

Suitable for use as control antibody for casein kinase Iε siRNA (h): sc-29914, casein kinase Iε siRNA (m): sc-29915, casein kinase Iε shRNA Plasmid (h): sc-29914-SH, casein kinase Iε shRNA Plasmid (m): sc-29915-SH, casein kinase Iε shRNA (h) Lentiviral Particles: sc-29914-V and casein kinase Iε shRNA (m) Lentiviral Particles: sc-29915-V.

Molecular Weight of casein kinase Iε: 42 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or BJAB whole cell lysate: sc-2207.

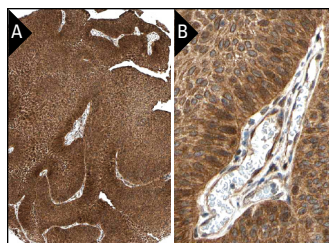
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

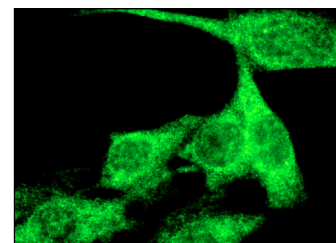
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



casein kinase Iε (H-60): sc-25423. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urothelial cancer tissue showing cytoplasmic and nuclear staining of tumor cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.



casein kinase Iε (H-60): sc-25423. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Partch, C.L., et al. 2006. Posttranslational regulation of the mammalian circadian clock by cryptochrome and protein phosphatase 5. *Proc. Natl. Acad. Sci. USA* 103: 10467-10472.
- Lin, L., et al. 2006. Coordination of NFκB and NFAT antagonism by the forkhead transcription factor FOXD1. *J. Immunol.* 176: 4793-4803.
- Witte, F., et al. 2010. Negative regulation of Wnt signaling mediated by CK1-phosphorylated Dishevelled via Ror2. *FASEB J.* 24: 2417-2426.
- Utz, A.C., et al. 2010. Analysis of cell type-specific expression of CK1 epsilon in various tissues of young adult BALB/c Mice and in mammary tumors of SV40 T-Ag-transgenic mice. *J. Histochem. Cytochem.* 58:1-15.
- Elyada, E., et al. 2011. CKIα ablation highlights a critical role for p53 in invasiveness control. *Nature* 470: 409-413.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **casein kinase Iε (A-2): sc-373912** or **casein kinase Iε (D-7): sc-365259**, our highly recommended monoclonal alternatives to casein kinase Iε (H-60).