

casein kinase I ϵ (R-19): sc-6472

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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- 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.
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- Allende, J.E., et al. 1995. Protein kinases. 4. Protein kinase CK2: an enzyme with multiple substrates and a puzzling regulation. *FASEB J.* 9: 313-323.

CHROMOSOMAL LOCATION

Genetic locus: CSNK1D (human) mapping to 17q25.3, CSNK1E (human) mapping to 22q13.1; Csnk1e (mouse) mapping to 15 E1, Csnk1d (mouse) mapping to 11 E2.

SOURCE

casein kinase I ϵ (R-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of casein kinase I ϵ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6472 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

casein kinase I ϵ (R-19) is recommended for detection of casein kinase I δ and casein kinase I ϵ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

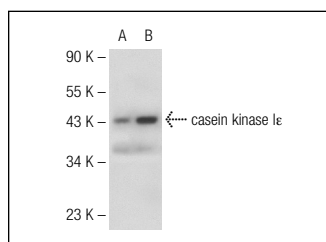
casein kinase I ϵ (R-19) is also recommended for detection of casein kinase I δ and casein kinase I ϵ in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for casein kinase I ϵ siRNA (h): sc-29914, casein kinase II β siRNA (h): sc-29916, casein kinase I ϵ shRNA Plasmid (h): sc-29914-SH, casein kinase II β shRNA Plasmid (h): sc-29916-SH, casein kinase I ϵ shRNA (h) Lentiviral Particles: sc-29914-V and casein kinase II β shRNA (h) Lentiviral Particles: sc-29916-V.

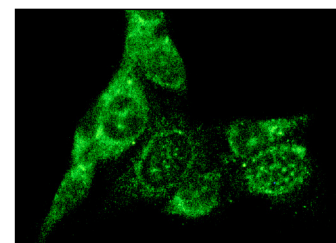
Molecular Weight of casein kinase I ϵ : 42 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or casein kinase I ϵ (h3): 293 Lysate: sc-159784.

DATA



casein kinase I ϵ (R-19): sc-6472. Western blot analysis of casein kinase I ϵ expression in non-transfected: sc-110760 (A) and human casein kinase I ϵ transfected: sc-159784 (B) 293 whole cell lysates.



casein kinase I ϵ (R-19): sc-6472. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

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.



Try **casein kinase I δ (A-2): sc-373912** or **casein kinase I δ (D-7): sc-365259**, our highly recommended monoclonal alternatives to casein kinase I ϵ (R-19).