

casein kinase I γ 1 (N-14): sc-18493

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.

CHROMOSOMAL LOCATION

Genetic locus: CSNK1G1 (human) mapping to 15q22.31; Csnk1g1 (mouse) mapping to 9 C.

SOURCE

casein kinase I γ 1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of casein kinase I γ 1 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-18493 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

casein kinase I γ 1 (N-14) is recommended for detection of casein kinase I γ 1 of human and, to a lesser extent, mouse and rat 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 γ 1 (N-14) is also recommended for detection of casein kinase I γ 1 in additional species, including canine and avian.

Suitable for use as control antibody for casein kinase I γ 1 siRNA (h): sc-38957, casein kinase I γ 1 siRNA (m): sc-38958, casein kinase I γ 1 shRNA Plasmid (h): sc-38957-SH, casein kinase I γ 1 shRNA Plasmid (m): sc-38958-SH, casein kinase I γ 1 shRNA (h) Lentiviral Particles: sc-38957-V and casein kinase I γ 1 shRNA (m) Lentiviral Particles: sc-38958-V.

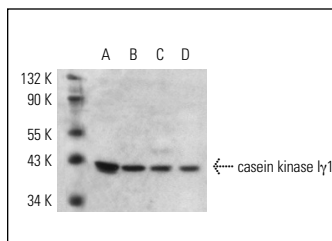
Molecular Weight of casein kinase I γ 1: 43 kDa.

Positive Controls: casein kinase I γ 1 (h2): 293 Lysate: sc-158340 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

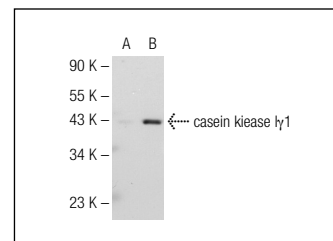
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



casein kinase I γ 1 (N-14): sc-18493. Western blot analysis of casein kinase I γ 1 expression in F9 (A) and NTERA-2 cl.D1 (B) whole cell lysates and rat testis (C) and mouse testis (D) tissue extracts.



casein kinase I γ 1 (N-14): sc-18493. Western blot analysis of casein kinase I γ 1 expression in non-transfected: sc-110760 (A) and human casein kinase I γ 1 transfected: sc-158340 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

- Chia, R., et al. 2014. Phosphorylation of LRRK2 by casein kinase 1 α regulates *trans*-Golgi clustering via differential interaction with ARHGEF7. *Nat. Commun.* 5: 5827.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **casein kinase I γ 1 (A-6): sc-133206**, our highly recommended monoclonal alternative to casein kinase I γ 1 (N-14).