SANTA CRUZ BIOTECHNOLOGY, INC.

casein kinase IIa (C-18): sc-6479



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 CKI α , γ , ϵ and δ , 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 α catalytic subunit is stimulated by the β 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.

CHROMOSOMAL LOCATION

Genetic locus: CSNK2A1 (human) mapping to 20q13; Csnk2a1 (mouse) mapping to 2 G3.

SOURCE

casein kinase II α (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of casein kinase II α 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.

Blocking peptide available for competition studies, sc-6479 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose (sc-6479 AC) conjugate for immunoprecipitation, 500 μ g/0.25 ml agarose in 1 ml.

APPLICATIONS

casein kinase II α (C-18) is recommended for detection of casein kinase II α 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with casein kinase II α .

casein kinase II α (C-18) is also recommended for detection of casein kinase II α in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for casein kinase II α siRNA (h): sc-29918, casein kinase II α siRNA (m): sc-29919, casein kinase II α shRNA Plasmid (h): sc-29918-SH, casein kinase II α shRNA Plasmid (m): sc-29919-SH, casein kinase II α shRNA (h) Lentiviral Particles: sc-29918-V and casein kinase II α shRNA (m) Lentiviral Particles: sc-29919-V.

Molecular Weight of casein kinase IIa: 42 kDa.

RESEARCH USE

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

STORAGE

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

DATA





casein kinase II α (C-18): sc-6479. Western blot analysis of casein kinase II α expression in HeLa (**A**), Jurkat (**B**), K-562 (**C**), BJAB (**D**) and NIH/3T3 (**E**) whole cell lysates and Jurkat (**F**) nuclear extract.

casein kinase II α (C-18): sc-6479. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

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