

casein kinase I δ (E-10): sc-55554

BACKGROUND

Casein kinase I (also designated CKI) and casein kinase II (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 α , γ , δ and ϵ , 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 α 2 β 2 or an α α ' β 2 structure. The α catalytic subunit is stimulated by the β regulatory subunit, which undergoes autophosphorylation. Casein kinase II activity is high in both 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: CSNK1D (human) mapping to 17q25.3; Csnk1d (mouse) mapping to 11 E2.

SOURCE

casein kinase I δ (E-10) is a mouse monoclonal antibody raised against amino acids 296-355 mapping near the C-terminus of casein kinase I δ of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 δ (E-10) is recommended for detection of casein kinase I δ of mouse, rat and human origin by Western Blotting (starting dilution 1:5000, dilution range 1:5000-1:10000), 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 δ (E-10) is also recommended for detection of casein kinase I δ in additional species, including equine and bovine.

Suitable for use as control antibody for casein kinase I δ siRNA (h): sc-29910, casein kinase I δ siRNA (m): sc-29911, casein kinase I δ shRNA Plasmid (h): sc-29910-SH, casein kinase I δ shRNA Plasmid (m): sc-29911-SH, casein kinase I δ shRNA (h) Lentiviral Particles: sc-29910-V and casein kinase I δ shRNA (m) Lentiviral Particles: sc-29911-V.

Molecular Weight of casein kinase I δ : 49 kDa.

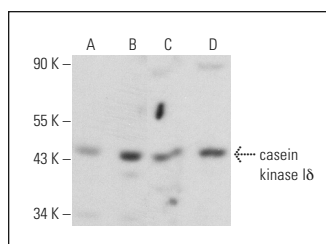
Molecular Weight of casein kinase I δ C-terminal degradation product: 42 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or casein kinase I δ (m): 293T Lysate: sc-125097.

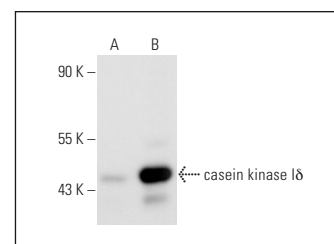
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



casein kinase I δ (E-10): sc-55554. Western blot analysis of casein kinase I δ expression in HeLa (A), K-562 (B), I-11.15 (C) and KNRK (D) whole cell lysates.



casein kinase I δ (E-10): sc-55554. Western blot analysis of casein kinase I δ expression in non-transfected: sc-117752 (A) and mouse casein kinase I δ transfected: sc-125097 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Hu, W., et al. 2017. Expression of Tau pathology-related proteins in different brain regions: a molecular basis of Tau pathogenesis. *Front. Aging Neurosci.* 9: 311.
- Xiong, Y., et al. 2019. Longdaysin inhibits Wnt/ β -catenin signaling and exhibits antitumor activity against breast cancer. *Onco Targets Ther.* 12: 993-1005.

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.



See **casein kinase I δ (C-8): sc-55553** for casein kinase I δ antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.