

# casein kinase II $\alpha$ (H-286): sc-9030

## 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 $\alpha$ ,  $\gamma$ ,  $\epsilon$  and  $\delta$ , 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  $\alpha 2\beta 2$  or an  $\alpha\alpha'\beta 2$  structure. The catalytic subunit is stimulated by the  $\beta$  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: CSNK2A2 (human) mapping to 16q21, CSNK2A1 (human) mapping to 20p13; Csnk2a2 (mouse) mapping to 8 D1, Csnk2a1 (mouse) mapping to 2 G3.

## SOURCE

casein kinase II $\alpha$  (H-286) is a rabbit polyclonal antibody raised against amino acids 1-320 of casein kinase II $\alpha$  of human origin.

## PRODUCT

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

## APPLICATIONS

casein kinase II $\alpha$  (H-286) is recommended for detection of casein kinase II $\alpha$  and casein kinase II $\alpha'$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 II $\alpha$  (H-286) is also recommended for detection of casein kinase II $\alpha$  and casein kinase II $\alpha'$  in additional species, including canine, bovine, porcine and avian.

Molecular Weight of casein kinase II $\alpha$ : 42 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, casein kinase II $\alpha$  (h2): 293T Lysate: sc-117423 or K-562 whole cell lysate: sc-2203.

## STORAGE

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

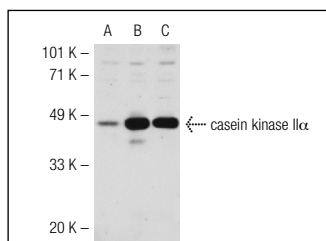
## PROTOCOLS

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

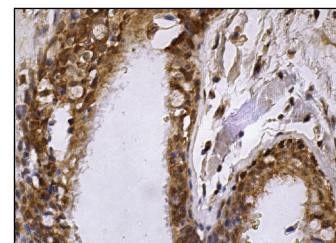
## RESEARCH USE

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

## DATA



casein kinase II $\alpha$  (H-286): sc-9030. Western blot analysis of casein kinase II $\alpha$  expression in non-transfected: sc-117752 (A), human casein kinase II $\alpha$  transfected: sc-116435 (B) and human casein kinase II $\alpha$  transfected: sc-117423 (C) 293T whole cell lysates.



casein kinase II $\alpha$  (H-286): sc-9030. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

## SELECT PRODUCT CITATIONS

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