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 Iα, Iγ, Iδ and Iε, 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 α2β2 or an ααβ2 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 in the cytosol and nucleus of proliferating and differentiating cells. Casein kinase II activity is usually expressed as a tetrameric complex consisting of either an α2β2 or an ααβ2 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.

APPLICATIONS

Suitable for use as control antibody for casein kinase Iα siRNA (h): sc-38963, casein kinase Iα siRNA (m): sc-38964, casein kinase Iβ siRNA Plasmid (h): sc-38963-SH, casein kinase Iβ siRNA Plasmid (m): sc-38964-SH, casein kinase Iα shRNA (h) Lentiviral Particles: sc-38963-V and casein kinase Iβ shRNA (m) Lentiviral Particles: sc-38964-V.

Molecular Weight of casein kinase Iα: 42 kDa.

Positive Controls: BYDP whole cell lysate: sc-364368, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

DATA

casein kinase Iα (D-7): sc-514403. Western blot analysis of casein kinase Iα expression in K-562 (A) and Jurkat (B) nuclear extracts and HeLa (C), K-562 (D) and MOLT-4 (E) and MCF7 (F) whole cell lysates.

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RESEARCH USE

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

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: CSNK2A2 (human) mapping to 16q21; Csnk2a1 (mouse) mapping to 2 G3.

SOURCE

casein kinase Iα' (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 327-350 at the C-terminus of casein kinase Iα' of human origin.

PRODUCT

Each vial contains 200 μg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

casein kinase Iα (D-7) is available conjugated to agarose (sc-514403 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514043 HRP), 200 μg/ml, for WB; to HCO (sc-514043 PE), fluorescein (sc-514403 FITC), Alexa Fluor® 488 (sc-514403 AF488), Alexa Fluor® 546 (sc-514403 AF546), Alexa Fluor® 594 (sc-514403 AF594) or Alexa Fluor® 647 (sc-514403 AF647), 200 μg/ml, for WB (RGB, IF, IHC) and FCM; and to either Alexa Fluor® 680 (sc-514403 AF680) or Alexa Fluor® 790 (sc-514403 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514403 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

STORAGE

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

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