BACKGROUND

The Cdc2 p34-cyclin B complex plays a critical role in the cell cycle by regulating the G2 to M phase transition. Also referred to as M phase promoting factor or MPF, this complex is a required component of the cell cycle machinery and is necessary for cell entry into mitosis. In Saccharomyces cerevisiae, this complex is known as Cdc28 and is associated with two proteins whose human homologs are called Cks1 and Cks2. Cks2 (cyclin-dependent kinases regulatory subunit 2) is a 79 amino acid protein that binds to the catalytic subunit of cyclin-dependent kinases, such as those in the Cdc2 p34-cyclin B complex. An essential component of this cyclin/cyclin-dependent kinase complex, Cks2 contributes to cell cycle control and is able to form a homodimer that can bind up to six subunits. Without proper activity of Cks2, the first metaphase/anaphase transition of meiosis cannot occur.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: CKS2 (human) mapping to 9q22.2; Cks2 (mouse) mapping to 13 A5.

SOURCE

Cks2 (3B3) is a mouse monoclonal antibody raised against recombinant Cks2 of human origin.

PRODUCT

Each vial contains 100 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Cks2 (3B3) is recommended for detection of Cks2 of mouse, rat and human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

Suitable for use as control antibody for Cks2 siRNA (h): sc-37568, Cks2 siRNA (m): sc-37569, Cks2 shRNA Plasmid (h): sc-37568-SH, Cks2 shRNA Plasmid (m): sc-37569-SH, Cks2 shRNA (h) Lentiviral Particles: sc-37568-V and Cks2 shRNA (m) Lentiviral Particles: sc-37569-V.

Molecular Weight of Cks2: 10 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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

Cks2 (3B3) sc-81833 Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization.

STORAGE

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

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.