

SUC1 (AA10.2): sc-53445

BACKGROUND

SUC1 belongs to the CKS family and is a CDK subunit from *Schizosaccharomyces pombe*. It interacts with CDK1 and is used exclusively to capture CDK1 complexes from various cell lines and egg extracts. SUC1 binds to the catalytic subunit of the cyclin dependent kinase (Cdc2) and is essential for its biological function. In the presence of zinc, SUC1 forms a homodimer. Mutations in the SUC1 gene show delays in mitotic and meiotic nuclear division. SUC1 gene deletion is lethal and generates cells blocked in the cell cycle as well as others impaired in cellular growth, showing that SUC1 may bind to and form unstable complexes with proteins necessary for the cell cycle and growth, and may also have a regulatory role in these processes.

REFERENCES

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- Ducommun, B., Brambilla, P. and Draetta, G. 1991. Mutations at sites involved in SUC1 binding inactivate Cdc2. *Mol. Cell. Biol.* 11: 6177-6184.
- Endicott, J.A. and Nurse, P. 1995. The cell cycle and SUC1: from structure to function? *Structure* 3: 321-325.
- Shteinberg, M. and Hershko, A. 1999. Role of SUC1 in the activation of the cyclosome by protein kinase Cdk1/cyclin B. *Biochem. Biophys. Res. Commun.* 257: 12-18.
- Kaiser, P., Moncollin, V., Clarke, D.J., Watson, M.H., Bertolaet, B.L., Reed, S.I. and Bailly, E. 1999. Cyclin-dep to control proteolysis of M-phase targets. *Genes Dev.* 13: 1190-1202.

SOURCE

SUC1 (AA10.2) is a mouse monoclonal antibody raised against p13 from *S. pombe*.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SUC1 (AA10.2) is available conjugated to agarose (sc-53445 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53445 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53445 PE), fluorescein (sc-53445 FITC), Alexa Fluor[®] 488 (sc-53445 AF488), Alexa Fluor[®] 546 (sc-53445 AF546), Alexa Fluor[®] 594 (sc-53445 AF594) or Alexa Fluor[®] 647 (sc-53445 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53445 AF680) or Alexa Fluor[®] 790 (sc-53445 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

SUC1 (AA10.2) is recommended for detection of SUC1 of *S. pombe* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of SUC1: 47 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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).

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.