BACKGROUND

Phosphorylation of Cdc2 on threonine 14 and Tyrosine 15 is required to maintain Cdc2 in an inactive state throughout the S and G2 phases of the cell cycle. The human Wee 1 protein, Wee 1 Hu, encodes a tyrosine-specific protein kinase that phosphorylates Cdc2 on tyrosine 15. Myt 1, a member of the Wee 1 family of protein kinases, has been shown to phosphorylate Cdc2 on both Threonine 14 and tyrosine 15 in a cyclin-dependent manner. Activity of both Wee 1 Hu and Myt 1 is regulated during the cell cycle, suggesting that both proteins play a role in mitotic control. Dephosphorylation of Cdc2 on threonine 14 and Tyrosine 15 in late G2 by Cdc25 then activates the Cdc2/cyclin B complex to allow entry into mitosis.

CHROMOSOMAL LOCATION

Genetic locus: WEE1 (human) mapping to 11p15.4.

SOURCE

Wee 1 (B-11) is a mouse monoclonal antibody raised against amino acids 347-646 of Wee 1 of human origin.

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.

Wee 1 (B-11) is available conjugated to agarose (sc-5285 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-5285 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-5285 PE), fluorescein (sc-5285 FITC), Alexa Fluor® 488 (sc-5285 AF488) or Alexa Fluor® 647 (sc-5285 AF647), 200 μg/ml, for IF, IHC(P) and FCM.

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APPLICATIONS

Wee 1 (B-11) is recommended for detection of Wee 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg 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).

Suitable for use as control antibody for Wee 1 siRNA (h): sc-36835, Wee 1 shRNA Plasmid (h): sc-36835-SH and Wee 1 shRNA (h) Lentiviral Particles: sc-36835-V.

Molecular Weight of Wee 1: 94 kDa.

Positive Controls: Hela whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or BJAB whole cell lysate: sc-2207.

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.

DATA

SELECT PRODUCT CITATIONS


PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.