**BACKGROUND**

It is now well established that cyclins play a positive role in promoting cell cycle transitions via their ability to associate with and activate their cognate cyclin-dependent kinases (Cdks). Cdk2 associates with cyclins A, D and E and has been implicated in the control of the G1 to S phase transition in mammals. A novel Cdk-interacting protein, p21 (also designated WAF1/CIP1), has been identified in cyclin A, cyclin D1, cyclin E and Cdk2 immunoprecipitates. p21 is a potent, tight-binding inhibitor of Cdks and can inhibit the phosphorylation of Rb by cyclin A-Cdk 2, cyclin E-Cdk2, cyclin D1-Cdk4 and cyclin D2-Cdk4 complexes. Expression of p21 is inducible by wildtype, but not mutant, p53. The mouse homolog of p21 is designated CAP20.

**CHROMOSOMAL LOCATION**

Genetic locus: CDKN1A (human) mapping to 6p21.2; Cdkn1a (mouse) mapping to 17 A3.3.

**SOURCE**

p21 (187) is a mouse monoclonal antibody produced by immunization with full length p21 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for ChIP application, sc-817 X, 200 µg/0.1 ml.

p21 (187) is available conjugated to agarose (sc-817 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-817 HRP), 200 µg/ml, for WB, IHC(P) and complexes. Expression of p21 is inducible by wildtype, but not mutant, p53. The mouse homolog of p21 is designated CAP20.

**APPLICATIONS**

p21 (187) is recommended for detection of p21 of mouse, rat and 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).


p21 (187) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of p21: 21 kDa.

**STORAGE**

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

**DATA**

Western blot analysis of p21 expression in untreated (A,C,E) and phototox-injected (B,D,F) C32 nuclear extracts. Antibodies tested include p21 (187): sc-817 (A,B); p21 (C-19): sc-397 (C,D) and p21 (C-19): sc-397 (E,F).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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