**BACKGROUND**

Cell cycle progression is regulated by a series of cyclin-dependent kinases that consist of catalytic subunits, designated Cdk's, and activating subunits, designated cyclins. Orderly progression through the cell cycle requires the activation and inactivation of different cyclin-Cdk's at appropriate times. A series of proteins has been recently described that function as "mitotic inhibitors". These include p21, the levels of which are elevated upon DNA damage in G1 in a p53-dependent manner, p16, and a more recently described p16 related inhibitor designated p15. A p21 related protein, p27, has been described as a negative regulator of G1 progression and has been speculated to function as a possible mediator of TGF-induced G1 arrest. p27 interacts strongly with D-type cyclins and Cdk4 in vitro and to a lesser extent with cyclin E and Cdk2.

**CHROMOSOMAL LOCATION**

Genetic locus: CDKN1B (human) mapping to 12p13.1; Cdkn1b (mouse) mapping to 6 G1.

**SOURCE**

p27 (F-8) is a mouse monoclonal antibody raised against amino acids 1-197 representing full length p27 of mouse 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.

p27 (F-8) is available conjugated to agarose (sc-1641 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-1641 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-1641 PE), fluorescein (sc-1641 FITC), Alexa Fluor® 488 (sc-1641 AF488), Alexa Fluor® 546 (sc-1641 AF546), Alexa Fluor® 594 (sc-1641 AF594) or Alexa Fluor® 647 (sc-1641 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-1641 AF680) or Alexa Fluor® 790 (sc-1641 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, p27 (F-8) is available conjugated to either TRITC (sc-1641 TRITC, 200 µg/ml) or Alexa Fluor® 405 (sc-1641 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

**APPLICATIONS**

p27 (F-8) is recommended for detection of p27 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), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30:1:3000).


Molecular Weight of p27: 27 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 p27 expression in MM-142 (A), RAW 264.7 (B), NAMALWA (C), BJAB (D), Raji (E) and CE (F) whole cell lysates.
- Immunoperoxidase staining of formalin fixed, paraffin embedded human ovary tissue showing nuclear and cytoplasmic staining of ovarian stroma cells and oocytes.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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