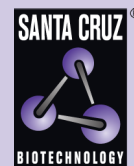


# p57 Kip2 (KP39): sc-56341



The Power to Question

## BACKGROUND

Cell cycle progression is regulated by a series of cyclin-dependent kinases that consist of catalytic subunits designated Cdk and activating subunits designated cyclins. Orderly progression through the cell cycle requires the activation and inactivation of different cyclin-Cdks at appropriate times. A series of proteins has been described that function as mitotic inhibitors. These include p21 Waf1/Cip1, the levels of which are elevated upon DNA damage in G<sub>1</sub> in a p53-dependent manner; p16 INK4A; and p16 INK4A-related inhibitors, designated p15 INK4B, p18 INK4C and p19 INK4D. A p21 Waf1/Cip1-related protein, p27, has been described as a negative regulator of G<sub>1</sub> progression and has been speculated to function as a possible mediator of TGF $\beta$ -induced G<sub>1</sub> arrest. A member of the p21 Waf1/Cip1/p27 family of mitotic inhibitory proteins, p57 Kip2 (also designated p57 and Kip2), is a potent, tight-binding cyclin-dependent inhibitor of several G<sub>1</sub> cyclin/Cdk complexes. Overexpression of p57 Kip2 arrests cells in G<sub>1</sub>. Unlike p21 Waf1/Cip1, p57 Kip2 is not regulated by p53.

## CHROMOSOMAL LOCATION

Genetic locus: CDKN1C (human) mapping to 11p15.4; Cdkn1c (mouse) mapping to 7 F5.

## SOURCE

p57 Kip2 (KP39) is a mouse monoclonal antibody raised against full length p57 Kip2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p57 Kip2 (KP39) is available conjugated to agarose (sc-56341 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-56341 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-56341 PE), fluorescein (sc-56341 FITC), Alexa Fluor<sup>®</sup> 488 (sc-56341 AF488), Alexa Fluor<sup>®</sup> 546 (sc-56341 AF546), Alexa Fluor<sup>®</sup> 594 (sc-56341 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-56341 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-56341 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-56341 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

p57 Kip2 (KP39) is recommended for detection of p57 Kip2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

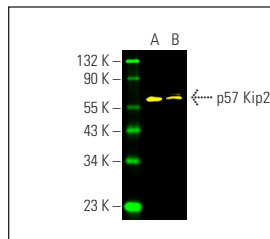
Suitable for use as control antibody for p57 Kip2 siRNA (h): sc-35751, p57 Kip2 siRNA (m): sc-37621, p57 Kip2 shRNA Plasmid (h): sc-35751-SH, p57 Kip2 shRNA Plasmid (m): sc-37621-SH, p57 Kip2 shRNA (h) Lentiviral Particles: sc-35751-V and p57 Kip2 shRNA (m) Lentiviral Particles: sc-37621-V.

Molecular Weight of p57 Kip2: 57 kDa.

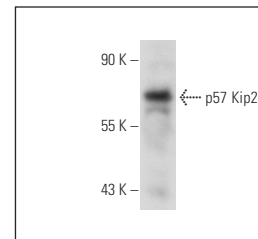
## STORAGE

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

## DATA



p57 Kip2 (KP39) Alexa Fluor<sup>®</sup> 488: sc-56341 AF488. Direct fluorescent western blot analysis of p57 Kip2 expression in mouse brain tissue extract (A) and NIH/3T3 whole cell lysate (B). Blocked with UltraCruz<sup>®</sup> Blocking Reagent: sc-516214. Cruz Marker<sup>™</sup> Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor<sup>®</sup> 680: sc-516730.



p57 Kip2 (KP39): sc-56341. Western blot analysis of p57 Kip2 expression in Jurkat whole cell lysate.

## SELECT PRODUCT CITATIONS

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- Velásquez, Z.D., et al. 2021. *Eimeria bovis* infections induce G<sub>1</sub> cell cycle arrest and a senescence-like phenotype in endothelial host cells. *Parasitology* 148: 341-353.

## RESEARCH USE

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

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