BACKGROUND

CRIF1, also known as GADD45GIP1, PLINP1, PRG6 or CKBBP2, is a 222 amino acid nuclear protein that plays a role in apoptosis control. Expressed in a variety of tissues, including heart, thyroid, trachea, kidney, ovary, pancreas, testis and stomach, CRIF1 functions as a negative regulator of G1 to S phase cell cycle production, specifically by working with GADD 45 proteins to inhibit the activity of cyclin-dependent kinases (Cdks). While overexpression of CRIF1 results in cell cycle arrest at the G1 phase, downregulation of CRIF1 by p53 in apoptotic cells promotes cell cycle progression and may be an important factor in tumor growth and metastasis. CRIF1 is subject to phosphorylation by casein kinase II, an event that is thought to decrease CRIF1 activity and promote cellular proliferation. Human CRIF1 shares 90% homology with its mouse counterpart, suggesting a conserved role between species.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: GADD45GIP1 (human) mapping to 19p13.2; Gadd45gip1 (mouse) mapping to 8C3.

SOURCE

CRIF1 (H-9) is a mouse monoclonal antibody raised against amino acids 1-222 representing full length CRIF1 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.

CRIF1 (H-9) is available conjugated to agarose (sc-374122 AC), 500 µg/0.25 ml agarose, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374122 PE), fluorescein (sc-374122 FITC), Alexa Fluor® 488 (sc-374122 AF488), Alexa Fluor® 546 (sc-374122 AF546), Alexa Fluor® 594 (sc-374122 AF594) or Alexa Fluor® 647 (sc-374122 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374122 AF680) or Alexa Fluor® 790 (sc-374122 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

CRIF1 (H-9) is recommended for detection of CRIF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30:1:3000).

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50:1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

SELECT PRODUCT CITATIONS


PROTOCOLS

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

STORAGE

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