SANTA CRUZ BIOTECHNOLOGY, INC.

GADD 153 (F-168): sc-575

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GADD 153 has been described as a growth arrest and DNA damage-inducible gene that encodes a C/EBP-related nuclear protein. This protein has also been designated C/EBP-homologous protein (CHOP-10). GADD 153 expression is induced by a variety of cellular stresses, inducing nutrient deprivation and metabolic perturbations. GADD 153 functions to block cells in G_1 to S phase in cell cycle progression and acts by dimerizing with other C/EBP proteins to direct GADD 153 dimers away from "classical" C/EBP binding sites, recognizing instead unique "nonclassical" sites. Thus GADD 153 acts as a negative modulator of C/EBP-like proteins in certain terminally differentiated cells, similar to the regulatory function of Id on the activity of Myo D and Myo D-related proteins involved in the development of muscle cells.

CHROMOSOMAL LOCATION

Genetic locus: DDIT3 (human) mapping to 12q13.3; Ddit3 (mouse) mapping to 10 D3.

SOURCE

GADD 153 (F-168) is a rabbit polyclonal antibody raised against amino acids 1-168 representing full length GADD 153 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GADD 153 (F-168) is recommended for detection of GADD 153 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).

GADD 153 (F-168) is also recommended for detection of GADD 153 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GADD 153 siRNA (h): sc-35437, GADD 153 siRNA (m): sc-35438, GADD 153 shRNA Plasmid (h): sc-35437-SH, GADD 153 shRNA Plasmid (m): sc-35438-SH, GADD 153 shRNA (h) Lentiviral Particles: sc-35437-V and GADD 153 shRNA (m) Lentiviral Particles: sc-35438-V.

Molecular Weight of GADD 153: 30 kDa.

Positive Controls: GADD 153 (m): 293T Lysate: sc-120383, RAW 264.7 whole cell lysate: sc-2211 or RAW 264.7 + LPS/PMA cell lysate: sc-2212.

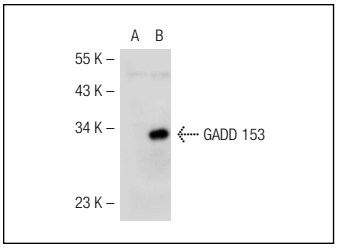
STORAGE

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

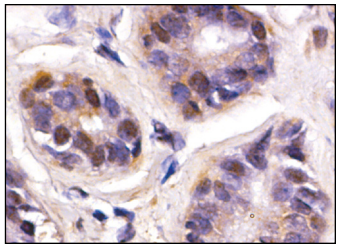
RESEARCH USE

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

DATA



GADD 153 (F-168): sc-575. Western blot analysis of GADD 153 expression in non-transfected: sc-117752 (**A**) and mouse GADD 153 transfected: sc-120383 (**B**) 293T whole cell lysates.



GADD 153 (F-168): sc-575. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing nuclear staining.

SELECT PRODUCT CITATIONS

1. Hitomi, M., et al. 1998. p21Waf1 inhibits the activity of cyclin dependent kinase 2 by preventing its activating phosphorylation. Oncogene 17: 959-969.
2. Choy, M.S., et al. 2011. Up-regulation of endoplasmic reticulum stress-related genes during the early phase of treatment of cultured cortical neurons by the proteasomal inhibitor lactacystin. J. Cell. Physiol. 226: 494-510.
3. Liu, X.H., et al. 2011. Cardiomyocyte-specific disruption of Serca2 in adult mice causes sarco(endo)plasmic reticulum stress and apoptosis. Cell Calcium 49: 201-207.
4. Michinaga, S., et al. 2011. Orexin neurons in hypothalamic slice cultures are vulnerable to endoplasmic reticulum stress. Neuroscience 190: 289-300.
5. Li, C., et al. 2012. Impact of intracellular alpha fetoprotein on retinoic acid receptors-mediated expression of GADD153 in human hepatoma cell lines. Int. J. Cancer 130: 754-764.
6. Racay, P. 2012. Ischaemia-induced protein ubiquitinylation is differentially accompanied with heat-shock protein 70 expression after naïve and pre-conditioned ischaemia. Cell. Mol. Neurobiol. 32: 107-119.
7. Zheng, X., et al. 2012. Acute hypoxia induces apoptosis of pancreatic β-cell by activation of the unfolded protein response and upregulation of CHOP. Cell Death Dis. 3: e322.
8. Jiménez-Castro, M.B., et al. 2012. Tauroursodeoxycholic acid affects PPARγ and TLR4 in Steatotic liver transplantation. Am. J. Transplant. 12: 3257-3271.

MONOS Satisfaction Guaranteed

Try **GADD 153 (B-3): sc-7351** or **GADD 153 (9C8): sc-56107**, our highly recommended monoclonal aternatives to GADD 153 (F-168). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **GADD 153 (B-3): sc-7351**.