SANTA CRUZ BIOTECHNOLOGY, INC.

GADD 153 (9C8): sc-56107

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 MyoD and MyoD-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 (9C8) is a mouse monoclonal antibody raised against GADD 153 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GADD 153 (9C8) is available conjugated to agarose (sc-56107 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-56107 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-56107 PE), fluorescein (sc-56107 FITC), Alexa Fluor® 488 (sc-56107 AF488), Alexa Fluor® 546 (sc-56107 AF546), Alexa Fluor® 594 (sc-56107 AF594) or Alexa Fluor® 647 (sc-56107 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-56107 AF680) or Alexa Fluor® 790 (sc-56107 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

GADD 153 (9C8) 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for GADD 153 siRNA (h): sc-35437, GADD 153 siRNA (m): sc-35438, GADD 153 siRNA (r): sc-156118, GADD 153 shRNA Plasmid (h): sc-35437-SH, GADD 153 shRNA Plasmid (m): sc-35438-SH, GADD 153 shRNA Plasmid (r): sc-156118-SH, GADD 153 shRNA (h) Lentiviral Particles: sc-35437-V, GADD 153 shRNA (m) Lentiviral Particles: sc-35438-V and GADD 153 shRNA (r) Lentiviral Particles: sc-156118-V.

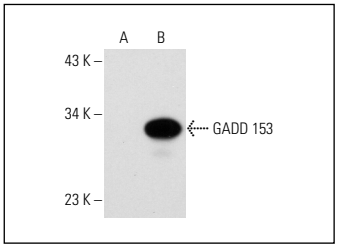
Molecular Weight of GADD 153: 30 kDa.

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.

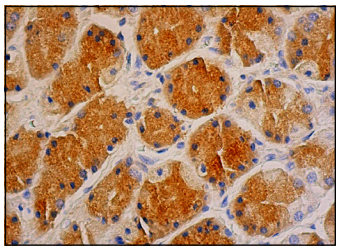
STORAGE

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

DATA



GADD 153 (9C8): sc-56107. 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 (9C8): sc-56107. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Pierre, A.S., et al. 2013. *Trans*-10, *cis*-12 conjugated linoleic acid induced cell death in human colon cancer cells through reactive oxygen species-mediated ER stress. Biochim. Biophys. Acta 1831: 759-768.
2. Venkatesan, T., et al. 2016. Deoxyrhapontigenin, a natural stilbene derivative isolated from *Rheum undulatum L.* induces endoplasmic reticulum stress-mediated apoptosis in human breast cancer cells. Integr. Cancer Ther. 15: NP44-NP52.
3. Vodret, S., et al. 2017. Inflammatory signature of cerebellar neurodegeneration during neonatal hyperbilirubinemia in $Ugt1^{-/-}$ mouse model. J. Neuroinflammation 14: 64.
4. Zhou, L., et al. 2019. Brefeldin A inhibits colorectal cancer growth by triggering Bip/Akt-regulated autophagy. FASEB J. 33: 5520-5534.
5. Wu, S., et al. 2020. The integrated UPR and ERAD in oligodendrocytes maintain myelin thickness in adults by regulating myelin protein translation. J. Neurosci. 40: 8214-8232.
6. Wu, S., et al. 2021. Endoplasmic reticulum associated degradation is required for maintaining endoplasmic reticulum homeostasis and viability of mature Schwann cells in adults. Glia 69: 489-506.
7. Nakamura, Y., et al. 2021. Enhancing calmodulin binding to ryanodine receptor is crucial to limit neuronal cell loss in Alzheimer disease. Sci. Rep. 11: 7289.
8. Blas-Valdivia, V., et al. 2021. Gallic acid prevents the oxidative and endoplasmic reticulum stresses in the hippocampus of adult-onset hypothyroid rats. Front. Pharmacol. 12: 671614.
9. Blas-Valdivia, V., et al. 2021. C-phycoerythrin from *Phormidium persicinum* prevents acute kidney injury by attenuating oxidative and endoplasmic reticulum stress. Mar. Drugs 19: 589.

RESEARCH USE

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