

GADD 153 (6D313): sc-71136

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, including nutrient deprivation and metabolic perturbations. GADD 153 functions to block cells in G₁ 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.

REFERENCES

- Sherr, C.J. 1994. G₁ phase progression: cycling on cue. *Cell* 79: 551-555.
- Hunter, T., et al. 1994. Cyclins and cancer II: cyclin D and Cdk inhibitors come of age. *Cell* 79: 573-582.
- Ron, D. 1994. Inducible growth arrest: new mechanistic insights. *Proc. Natl. Acad. Sci. USA* 91: 1985-1986.

CHROMOSOMAL LOCATION

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

SOURCE

GADD 153 (6D313) 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.

APPLICATIONS

GADD 153 (6D313) 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.

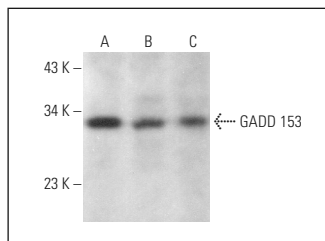
Molecular Weight of GADD 153: 30 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, MCF7 whole cell lysate: sc-2206 or TK-1 whole cell lysate: sc-364798.

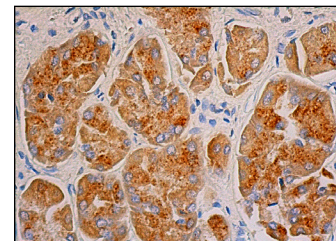
STORAGE

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

DATA



GADD 153 (6D313): sc-71136. Western blot analysis of GADD 153 expression in PC-12 (A), MCF7 (B) and TK-1 (C) whole cell lysates.



GADD 153 (6D313): sc-71136. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Xiong, F.Y., et al. 2018. Melatonin ameliorates myocardial apoptosis by suppressing endoplasmic reticulum stress in rats with long-term diabetic cardiomyopathy. *Mol. Med. Rep.* 17: 374-381.
- Yi, H., et al. 2019. Isosteviol protects free fatty acid- and high fat diet-induced hepatic injury via modulating PKC-β/p66Shc/Ros and ER stress pathways. *Antioxid. Redox Signal.* 30: 1949-1968.
- Zhu, L., et al. 2019. Homer1/mGluR1-mediated ER stress contributes to lysophosphatidic acid-induced neurotoxicity in cortical neurons. *Neurochem. Int.* 129: 104515.
- Wang, X., et al. 2020. 2,3,5,4'-tetrahydroxystilbene-2-O-β-D-glucoside induces autophagy of liver by activating PI3K/Akt and Erk pathway in prediabetic rats. *BMC Complement. Med. Ther.* 20: 177.
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- Ullah, H.M.A., et al. 2021. Nogo-A is critical for pro-inflammatory gene regulation in myocytes and macrophages. *Cells* 10: 282.
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- Dos Anjos Cordeiro, J.M., et al. 2022. Maternal hypothyroidism causes oxidative stress and endoplasmic reticulum stress in the maternal-fetal interface of rats. *Free Radic. Biol. Med.* 191: 24-39.
- Chen, Y.F., et al. 2022. Intracellular alpha-fetoprotein mitigates hepatocyte apoptosis and necroptosis by inhibiting endoplasmic reticulum stress. *World J. Gastroenterol.* 28: 3201-3217.

RESEARCH USE

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