

# GADD 34 (C-20): sc-794

## BACKGROUND

It is well established that cell cycle progression is subject to arrest at G<sub>1</sub> and G<sub>2</sub> checkpoints in response to DNA damage, presumably to allow time for DNA repair prior to entry into S and M phase, respectively. The p53 tumor suppressor is required for one such G<sub>1</sub> checkpoint and functions to upregulate expression of GADD 45 and the mitotic inhibitory protein p21. GADD 45 has been shown to stimulate DNA excision repair *in vitro* and to inhibit entry of cells into S phase, and it apparently acts in concert with GADD 153 in inducing growth arrest. A related DNA-damage inducible gene, GADD 34 (also designated Myd116) has been shown to synergize with GADD 45 or GADD 153 in suppressing cell growth. PEG-3 (progression elevated gene-3) shares significant homology with GADD 34 and is inducible by DNA damage. PEG-3 expression has been shown to be elevated in cells displaying a progressed-transformed phenotype.

## REFERENCES

- 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: PPP1R15A (human) mapping to 19q13.33; Myd116 (mouse) mapping to 7 B4.

## SOURCE

GADD 34 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of GADD 34 of hamster origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-794 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GADD 34 (C-20) is recommended for detection of GADD 34 of mouse, rat, human and hamster origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 GADD 34 siRNA (h): sc-37414, GADD 34 siRNA (m): sc-37415, GADD 34 shRNA Plasmid (h): sc-37414-SH, GADD 34 shRNA Plasmid (m): sc-37415-SH, GADD 34 shRNA (h) Lentiviral Particles: sc-37414-V and GADD 34 shRNA (m) Lentiviral Particles: sc-37415-V.

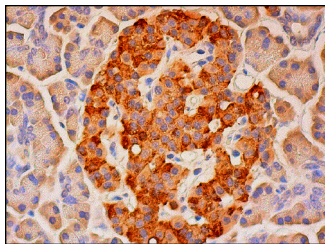
Molecular Weight of GADD 34: 73 kDa.

Positive Controls: U-937 cell lysate: sc-2239.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



GADD 34 (C-20): sc-794. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

## SELECT PRODUCT CITATIONS

- Schimmang, T., et al. 2003. Lack of Bdnf and TrkB signalling in the postnatal cochlea leads to a spatial reshaping of innervation along the tonotopic axis and hearing loss. *Development* 130: 4741-4750.
- García, L., et al. 2004. Ischaemic preconditioning in the rat brain: effect on the activity of several initiation factors, Akt and extracellular signal-regulated protein kinase phosphorylation, and GRP78 and GADD 34 expression. *J. Neurochem.* 88: 136-147.
- Andrew, D., et al. 2006. Gadd34 requirement for normal hemoglobin synthesis. *Mol. Cell. Biol.* 26: 1644-1653.

## 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.


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 Satisfaction  
 Guaranteed

Try **GADD 34 (B-10): sc-373815** or **GADD 34 (D-8): sc-46661**, our highly recommended monoclonal alternatives to GADD 34 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **GADD 34 (B-10): sc-373815**.