

**Mouse Anti-GADD34 [A4D7]: MC0589**

**Intended Use:** For Research Use Only

**Description:** Growth arrest and DNA damage-inducible protein GADD34 also known as protein phosphatase 1 regulatory subunit 15A PPP1R15A is a protein encoded by the PPP1R15A gene in humans. The Gadd34 (also designated MyD116) gene was originally discovered as a member in a set of gadd and MyD mammalian genes encoding acidic proteins that synergistically suppress 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. This gene is a member of a group of genes whose transcript levels are increased following stressful growth arrest conditions and treatment with DNA-damaging agents. The induction of this gene by ionizing radiation occurs in certain cell lines regardless of p53 status, and its protein response is correlated with apoptosis following ionizing radiation.

**Specifications:**

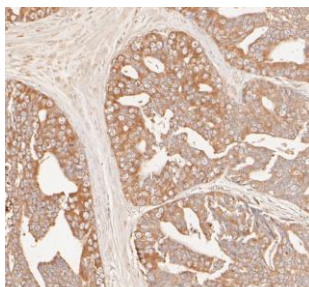
Clone: A4D7  
 Source: Mouse  
 Isotype: IgG1  
 Reactivity: Human  
 Immunogen: Synthetic peptide within human GADD34 aa 1-50 / 674  
 Localization: Endoplasmic reticulum membrane, mitochondrion outer membrane  
 Formulation: Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, WB  
 Package:

Description	Catalog No.	Size
GADD34 [A4D7] Concentrated	MC0589	1 ml

**IHC Procedure\*:**

Positive Control Tissue: Prostate carcinoma  
 Concentrated Dilution: 10-100  
 Pretreatment: Tris EDTA pH9.0 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human prostate carcinoma stained with anti-GADD34 using DAB

**References:**

1. Polyphenolic Extract of Euphorbia supina Attenuates Manganese-Induced Neurotoxicity by Enhancing Antioxidant Activity through Regulation of ER Stress and ER Stress-Mediated Apoptosis. Bahar E, et al. Int J Mol Sci 18:N/A, 2017.
2. The endoplasmic reticulum stress marker CHOP predicts survival in malignant mesothelioma. L E Dalton, et al. British Journal of Cancer volume 108, pages1340–1347, 2013.
3. EBNA3C interacts with Gadd34 and counteracts the unfolded protein response. Garrido JL, et al. Virol J 6:231, 2009.