

## GADD34 Polyclonal Antibody

Catalog number: 10449-1-AP

Size: 39 µg/150 µl

Source: Rabbit

Isotype: IgG

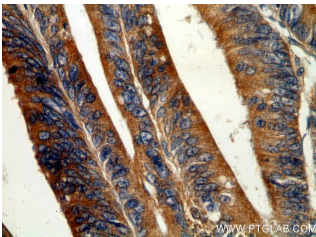
Synonyms:

PPP1R15A; GADD34, growth

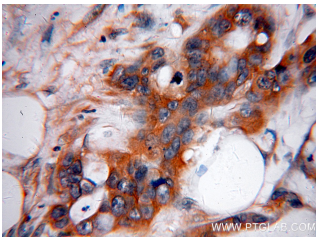
arrest and DNA damage-

inducible protein 34,

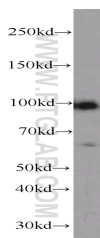
PPP1R15A



Immunohistochemical of paraffin-embedded human colon cancer using 10449-1-AP (GADD34 antibody) at dilution of 1:100 (under 40x lens)



Immunohistochemical of paraffin-embedded human pancreas cancer using 10449-1-AP (GADD34 antibody) at dilution of 1:100 (under 40x lens)



K-562 cells were subjected to SDS PAGE followed by western blot with 10449-1-AP (GADD34 antibody) at dilution of 1:600

### Background

GADD34, also named PPP1R15A, belongs to the PPP1R15 family. GADD34 can be triggered as a direct target of activating transcription factor4 (ATF4) under ER stress, it plays a pivotal role in the recovery of cells from shut-down of translation induced by ER stress. It recruits the serine/threonine-protein phosphatase (PP1) to dephosphorylate the translation initiation factor eIF2alpha, thereby reversing the shut-off of protein synthesis initiated by stress-inducible kinases and facilitating recovery of cells from stress. GADD34 down-regulates the TGF-beta signaling pathway by promoting dephosphorylation of TGFβ1 via PP1. It may also promote apoptosis by inducing TP53 phosphorylation on 'Ser-15'. Starvation-induced expression of GADD34 reduced mTOR activity and induced autophagy in wild-type mice, but not in GADD34 KO mice. Molecular weight of GADD34 appears to be about 100 kDa which was confirmed in GADD34 KO mice and drug treated cells, despite the predicated MW of 73 kDa, and Proteintech's GADD34 antibody 10449-1-AP primarily recognize the 100 kDa band.

### Applications

Tested applications:	ELISA, WB, IHC, IF
Cited applications:	IF, IHC, IP, WB
Species specificity:	Human, Mouse, Rat; other species not tested.
Cited species:	Hamster, human, mouse, rat
Calculated GADD34 MW:	73 kDa
Observed GADD34 MW:	100 kDa
Positive WB detected in	K-562 cells, HeLa cells, HepG2 cells, Jurkat cells
Positive IHC detected in	Human pancreas cancer tissue, human colon cancer tissue
Positive IF detected in	PC-3 cells
Recommended dilution:	WB: 1:200-1:2000
	IHC: 1:20-1:200
	IF: 1:20-1:200

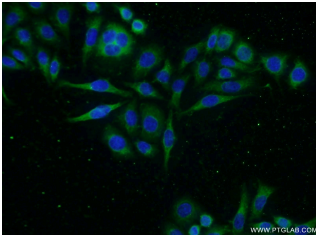
Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

### Immunogen information

Immunogen:	Ag0578
GenBank accession number:	BC003067
Gene ID (NCBI):	23645
Full name:	Protein phosphatase 1, regulatory (inhibitor) subunit 15A

### Product information

Purification method:	Antigen affinity purification
Storage:	PBS with 0.1% sodium azide and 50% glycerol pH 7.3. Store at -20°C.



**Immunofluorescent analysis  
of PC-3 cells using 10449-1-  
AP( GADD34 Antibody) at  
dilution of 1:50 and Alexa  
Fluor 488-conjugated  
AffiniPure Goat Anti-Rabbit  
IgG(H+L)**