

For Research Use Only

# REDD1 specific Polyclonal antibody

Catalog Number: 10638-1-AP

Featured Product

279 Publications



## Basic Information

### Catalog Number:

10638-1-AP

### Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG0965

### GenBank Accession Number:

BC007714

### GeneID (NCBI):

54541

### UNIPROT ID:

Q9NX09

### Full Name:

DNA-damage-inducible transcript 4

### Calculated MW:

25 kDa

### Observed MW:

32-35 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:2000-1:12000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP, ChIP

### Species Specificity:

human, mouse

### Cited Species:

human, mouse, rat, pig, rabbit, squirrel, gerbil

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB:** A431 cells, DU 145 cells, Cobalt Chloride treated HeLa cells, LNCaP cells, PC-3 cells, A549 cells, K-562 cells, SH-SY5Y cells

**IP:** MCF-7 cells,

**IHC:** human lung cancer tissue, human heart tissue, human liver tissue

**IF/ICC:** LNCaP cells,

## Background Information

REDD1, also named as RTP801 and DDIT4, belongs to the DDIT4 family. REDD1 promotes neuronal cell death. It is a novel transcriptional target of p53 implicated ROS in the p53-dependent DNA damage response. REDD1 controlled cell growth under energy stress, as an essential regulator of TOR activity through the TSC1/2 complex. REDD-1 expression has also been linked to apoptosis, A $\beta$  toxicity and the pathogenesis of ischemic diseases. As an HIF-1-responsive gene, REDD-1 exhibits strong hypoxia-dependent upregulation in ischemic cells of neuronal origin [PMID: 19996311]. In response to stress due to DNA damage and glucocorticoid treatment, REDD-1 is upregulated at the transcriptional level [PMID: 21733849]. REDD-1 negatively regulates the mammalian target of Rapamycin, a serine/threonine kinase often referred to as mTOR [PMID: 22951983]. It is crucial in the coupling of extra- and intracellular cues to mTOR regulation. The absence of REDD-1 is associated with the development of retinopathy, a major cause of blindness [PMID: 22304497]. REDD1 is a new host defense factor, and chemical activation of REDD1 expression represents a potent antiviral intervention strategy [PMID: 21909097]. The calculated molecular weight of REDD1 is 25 kDa. Because of multiple lysines in the proteins, REDD1 often migrates around 35 kDa on Western blot [PMID: 19221489]. This antibody is a rabbit polyclonal antibody raised against full length human REDD1 antigen. This antibody is specific to the REDD1 from siRNA experiment (PMID: 24713927)

## Notable Publications

Author	Pubmed ID	Journal	Application
Aditi Sharma	36170375	Sci Adv	WB
Honghu Tang	34660620	Front Med (Lausanne)	WB
King Frank W FW	19789631	PLoS One	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

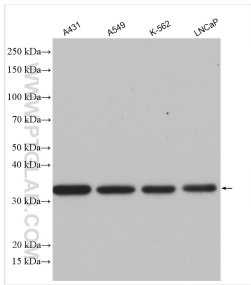
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

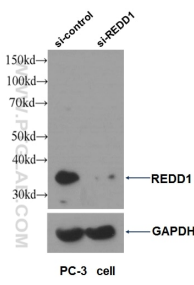
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

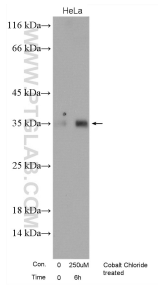
Selected Validation Data



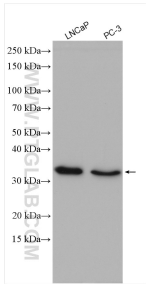
Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



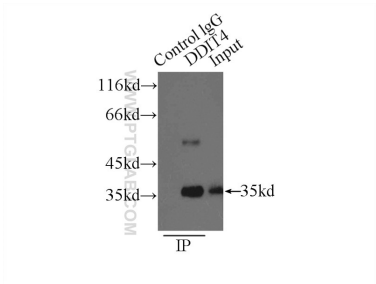
WB result of REDD1 antibody (10638-1-AP, 1:1000) with si-control and si-REDD1 transfected PC-3 cells.



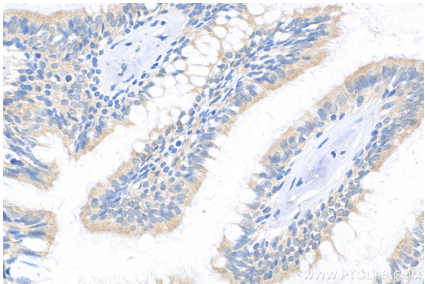
Non-treated Hela and Cobalt Chloride treated Hela cells were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:600 incubated at room temperature for 6 hours. .



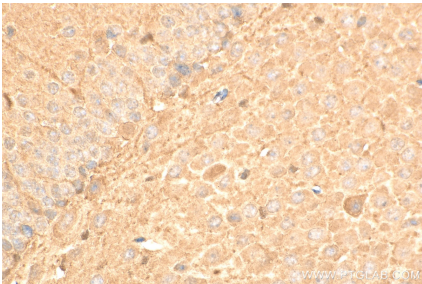
Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



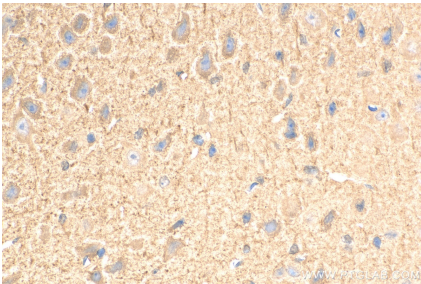
IP result of anti-REDD1 specific (IP:10638-1-AP, 3ug; Detection:10638-1-AP 1:500) with MCF-7 cells lysate 2500ug.



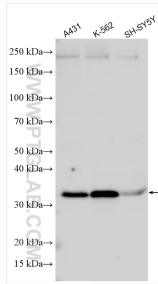
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 10638-1-AP (REDD1 specific antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



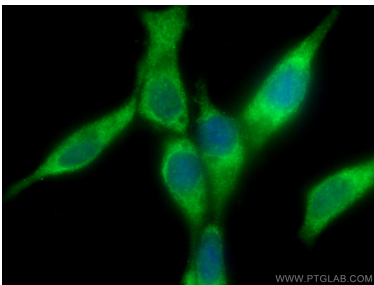
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 10638-1-AP (REDD1 specific antibody) at dilution of 1:600 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 10638-1-AP (REDD1 specific antibody) at dilution of 1:600 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Methanol)  
fixed LNCaP cells using REDD1 specific antibody  
(10638-1-AP) at dilution of 1:400 and  
CoraLite®488-Conjugated Goat Anti-Rabbit  
IgG(H+L).