

# REDD1 specific Polyclonal antibody

Catalog Number: 10638-1-AP

Featured Product

258 Publications

## Basic Information

## Catalog Number:

10638-1-AP

## Size:

150ul, Concentration: 600 µg/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 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

## Applications

## Tested Applications:

WB, IP, IF, IHC, ELISA

## Cited Applications:

WB, IP, IF, FC, IHC, CoIP, ChIP

## Species Specificity:

human, mouse

## Cited Species:

human, rat, mouse, rabbit, pig, 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

**IP:** MCF-7 cells,

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

## 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, Aβ 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

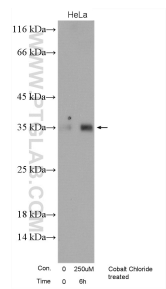
For technical support and original validation data for this product please contact:

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

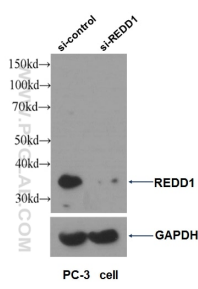
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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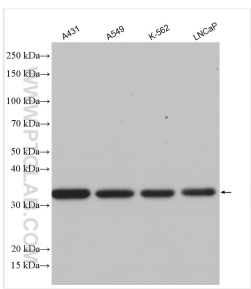
Selected Validation Data



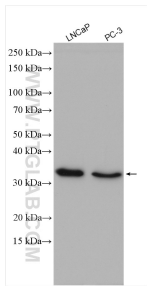
Non-treated HeLa and Cobalt Chloride treated HeLa cells were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:600 incubated at room temperature for 6 hours.



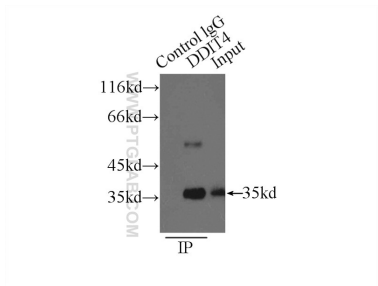
WB result of REDD1 antibody (10638-1-AP, 1:1000) with si-control and si-REDD1 transfected PC-3 cells.



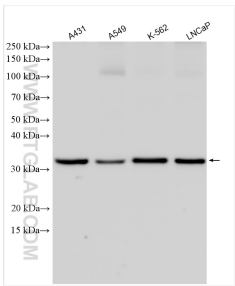
Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



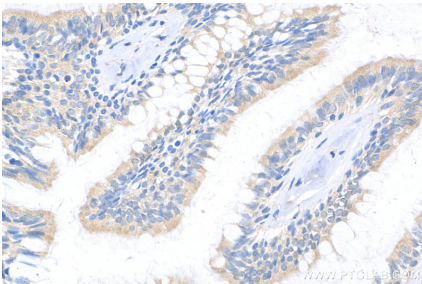
Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



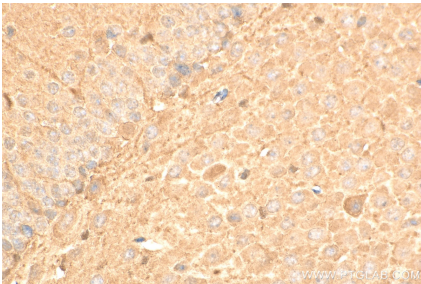
IP result of anti-REDD1 specific (IP:10638-1-AP, 3ug; Detection:10638-1-AP 1:500) with MCF-7 cells lysate 2500ug.



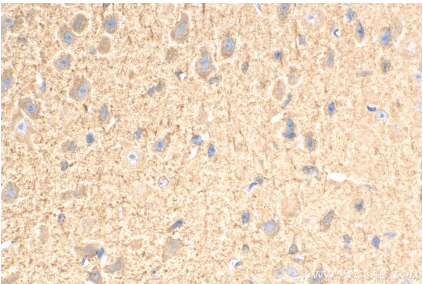
Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



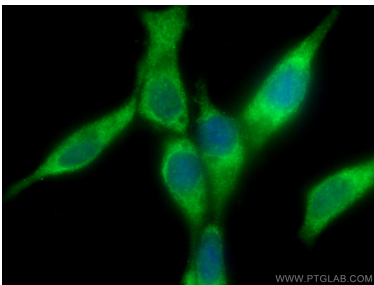
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 10638-1-AP (REDD1 specific antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



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 AffiniPure Goat Anti-  
Rabbit IgG(H+L).