For Research Use Only

REDD1 specific Polyclonal antibody

Catalog Number:10638-1-AP Featured Product 283 Publications

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Basic Information

Catalog Number:
10638-1-AP

Concentration:
600 ug/ml

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, PC-3 cells, Cobalt Chloride treated HeLa cells, LNCaP cells, K-562 cells, A549 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 β 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 offen 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

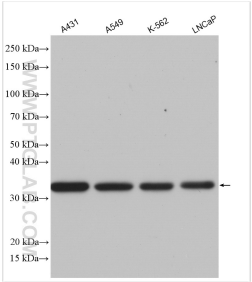
Author	Pubmed ID	Journal	Application
Aditi Sharma	36170375	Sci Adv	WB
Honghu Tang	34660620	Front Med (Lausanne)	WB
King Frank W FW	19789631	PLoS One	WB

Storage

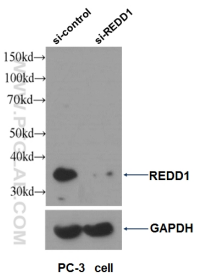
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

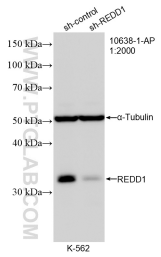
Selected Validation Data



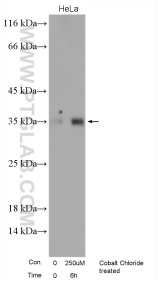
Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



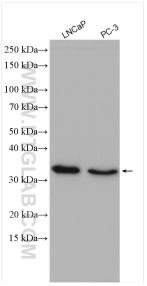
WB result of REDD1 antibody (10638-1-AP, 1:1000) with si-control and si-REDD1 transfected PC-3 cells.



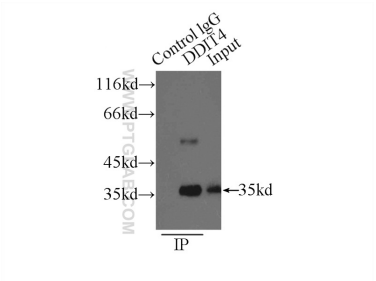
WB result of REDD1 specific antibody (10638-1-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-REDD1 specific transfected K-562 cells.



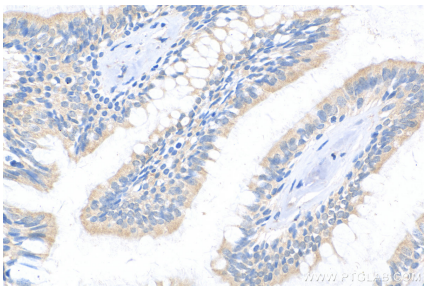
Non-treated Hela and Cobalt Chloride treated Hela cells were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:600 incubated at room temperature for 6 hours. .



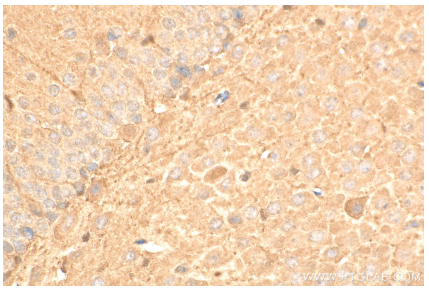
Various lysates were subjected to SDS PAGE followed by western blot with 10638-1-AP (REDD1 specific antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



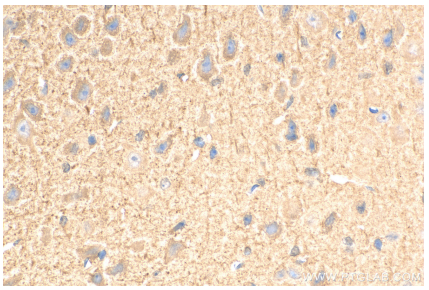
IP result of anti-REDD1 specific (IP:10638-1-AP, 3ug; Detection:10638-1-AP 1:500) with MCF-7 cells lysate 2500ug.



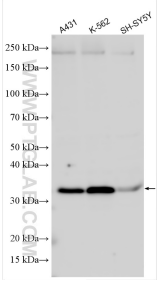
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 10638-1-AP (REDD1 specific antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

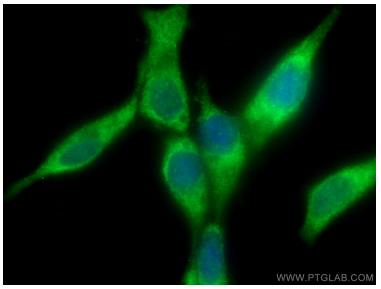


Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 10638-1-AP (REDD1 specific antibody) at dilution of 1:600 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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