## For Research Use Only

## REDD1 Recombinant antibody

Catalog Number:82650-1-RR



**Basic Information** 

Catalog Number: 82650-1-RR

Size:

Source: Rabbit

1000 ug/ml

GenBank Accession Number: BC007714 GeneID (NCBI):

54541 **UNIPROT ID:** Q9NX09

Full Name: Isotype:

DNA-damage-inducible transcript 4

Calculated MW: Immunogen Catalog Number:

AG0965 25 kDa

> Observed MW: 32-35 kDa

**Applications** 

**Tested Applications:** 

WB, ELISA

Species Specificity:

human

Positive Controls:

WB: A549 cells, Cobalt Chloride treated HeLa cells, K-

**Purification Method:** 

CloneNo.:

Protein A purification

Recommended Dilutions:

WB 1:2000-1:14000

562 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 TSC 1/2 complex. REDD-1 expression has also been linked to apoptosis, A  $\beta$  toxicity and the pathogenesis of ischemic diseases. As an HIF-1 $responsive gene, REDD-1\ exhibits\ strong\ hypoxia-dependent\ upregulation\ in\ is chemic\ cells\ of\ neuronal\ origin [PMID:$ 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].

Storage

Storage:

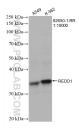
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

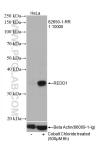
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

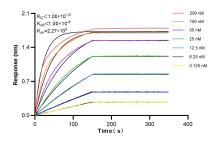
## **Selected Validation Data**



Various lysates were subjected to SDS PAGE followed by western blot with 82650-1-RR (REDD1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



Cobalt Chloride treated HeLa cells were subjected to SDS PAGE followed by western blot with 826501-RR (REDD1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



Biolayer interferometry (BLL) kinetic assays of 82650-1-RR against Human REDD1 were performed. The affinity constant is below 1 pM.