### For Research Use Only

# SIRT1 Polyclonal antibody

Catalog Number:13161-1-AP

Featured Product





### **Basic Information**

Catalog Number: 13161-1-AP Concentration: 700 ug/ml Source: Rabbit Isotype: IgG Immunogen Catalog Number: AG3808 GenBank Accession Number: BC012499 GeneID (NCBI): 23411 UNIPROT ID: Q96EB6

Full Name: sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae) Calculated MW:

**Positive Controls:** 

IF/ICC : HepG2 cells, HeLa cells

tissue

### 747 aa, 82 kDa

Observed MW: 110-130 kDa, 80-85 kDa

### Purification Method: Antigen affinity purification

Recommended Dilutions: WB: 1:1000-1:6000

IHC: 1:500-1:2000 IF/ICC: 1:200-1:800

WB: HEK-293 cells, HeLa cells, MDA-MB-231 cells

IHC : human colon cancer tissue, human lung cancer

# Applications

Tested Applications: WB, IHC, IF/ICC, ELISA Cited Applications: WB, IHC, IF, IP, CoIP, RIP, ELISA

Species Specificity: human

Cited Species: human, pig, chicken, zebrafish, bovine, sheep, goat, duck

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

# Background Information

SIRT1, also named SIR2L1, contains a deacetylase sirtuin-type domain and belongs to the sirtuin family. The posttranslation modified SIRT1 is a 110-130 kDa protein, which contains one deacetylase sirtuin-type domain. The 75-80 kDa SirT1 fragment was detected to lack the carboxy-terminus (PMID:21305533). SirT1 exists a 57-61 kDa isoform. SIRT1 may be found in nucleolus, nuclear euchromatin, heterochromatin, and inner membrane. It can shuttle between the nucleus and cytoplasm. SIRT1 regulates processes such as apoptosis and muscle differentiation by deacetylating key proteins. SIRT1 in particular initiates several signaling events relevant to cardioprotection, including activation of endothelial nitric oxide synthase, INS receptor signaling, and autophagy. In addition, SIRT1 activation elicits resistance to oxidative stress via the regulation of transcription factors and co-activators such as FOXO, Hif-2a, and NF-kB. SIRT1 regulates the p53-dependent DNA damage response pathway by binding to and deacetylating p53, specifically at Lysine 382. This antibody is a rabbit polyclonal antibody raised against residues near the N terminus of human SIRT1.

### **Notable Publications**

Author	Pubmed ID	Journal	Application
BreAnna Cameron	34590699	Biol Open	WB
Xiaoyan Liu	31574948	Int J Mol Sci	WB
Xuebin Hu	30205735	Autophagy	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

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 13161-1-AP (SIRT1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.

Immunohistochemical analysis of paraffinembedded human colon cancer tissue slide using 13161-1-AP (SIRT1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffinembedded human colon cancer tissue slide using 13161-1-AP (SIRT1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using SIRT1 antibody (13161-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red).