

For Research Use Only

SIRT1 Polyclonal antibody

Catalog Number: 13161-1-AP

Featured Product

133 Publications



Basic Information

Catalog Number:

13161-1-AP

Size:

150ul, Concentration: 700 µg/ml by Nanodrop and 300 µg/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG3808

GenBank Accession Number:

BC012499

GeneID (NCBI):

23411

Full Name:

sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae)

Calculated MW:

747 aa, 82 kDa

Observed MW:

110-130 kDa, 80-85 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:6000

IP 0.5-4.0 ug for IP and 1:500-1:1000 for WB

IHC 1:50-1:200

IF 1:50-1:500

Applications

Tested Applications:

IF, IHC, IP, WB, ELISA

Cited Applications:

IF, IHC, IP, WB

Species Specificity:

human, mouse

Cited Species:

bovine, human, Megalobrama amblycephala, mouse, mouse, pig, zebrafish

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: HEK-293 cells, HeLa cells

IP: mouse testis tissue,

IHC: mouse testis tissue, human colon cancer tissue, human lung cancer tissue

IF: HeLa cells,

Background Information

SIRT1, also named as SIRT1L1, contains a deacetylase sirtuin-type domain and belongs to the sirtuin family. The post-translation 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 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 regulation of transcription factors and co-activators such as FOXO, Hif-2a, and NF-κB. 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
Xiaoyan Liu	31574948	Int J Mol Sci	WB
Xuebin Hu	30205735	Autophagy	WB
Kuo-Cheng Lan	28931916	Sci Rep	IHC

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

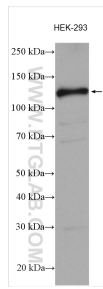
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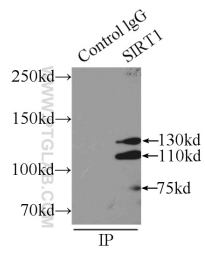
E: proteintech@ptglab.com
W: ptglab.com

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

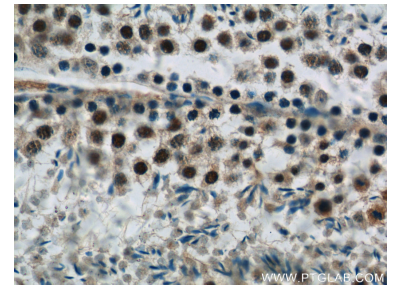
Selected Validation Data



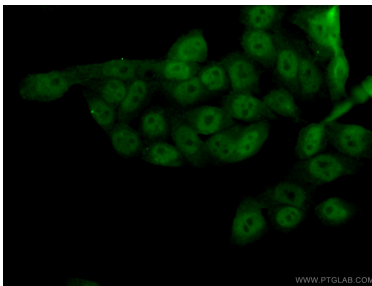
Various lysates were subjected to SDS PAGE followed by western blot with 13161-1-AP (SIRT1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



IP Result of anti-SIRT1 (IP:13161-1-AP, 4ug; Detection:13161-1-AP 1:500) with mouse testis tissue lysate 8000ug.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 13161-1-AP (SIRT1 Antibody) at dilution of 1:50 (under 40x lens).



Immunofluorescent analysis of (10% Formaldehyde) fixed HeLa cells using 13161-1-AP (SIRT1 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).