

SIRT1 Polyclonal antibody

Catalog Number: 13161-1-AP

Featured Product

431 Publications

Basic Information

Catalog Number:

13161-1-AP

Concentration:

1000 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:

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

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

Positive Controls:

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

IHC : human colon cancer tissue, human lung cancer tissue

IF/ICC : HepG2 cells, HeLa cells

Background Information

SIRT1, also named SIR2L1, 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 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-2α, 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
BreAnna Cameron	34590699	Biol Open	WB
Xiaoyan Liu	31574948	Int J Mol Sci	WB
Xuebin Hu	30205735	Autophagy	WB

Storage

Storage:

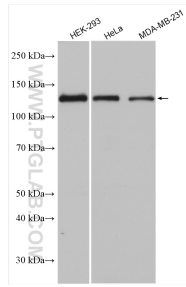
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

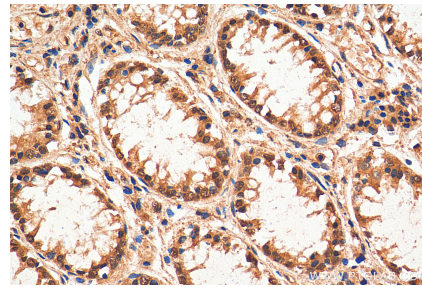
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

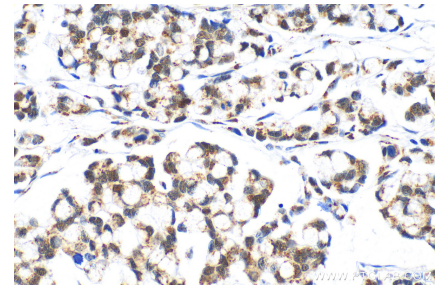
Selected Validation Data



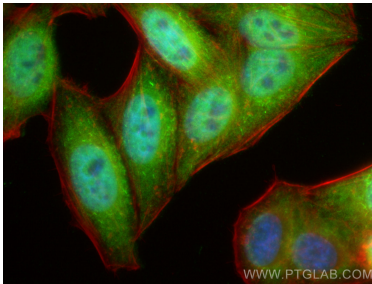
Various lysates were subjected to SDS PAGE followed by western blot with 13161-1-AP (SIRT1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded 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 paraffin-embedded 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).