For Research Use Only

Multi-rAb™ SIRT1 Multi-Recombinant antibody

Catalog Number:RMX00009

proteintech®
Antibodies | ELISA kits | Proteins
www.ptglab.com

Basic Information

Catalog Number:
RMX00009

Size:
100ul , Concentration: 800 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

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

Purification Method:
N/A

Recommended Dilutions:
WB 1:2000-1:16000
IHC 1:250-1:1000
IF/ICC 1:500-1:2000

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Species Specificity:
human, mouse, rat

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, Jurkat cells, MCF-7 cells

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

IF/ICC : A431 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 containing 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.

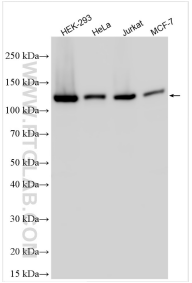
Storage

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

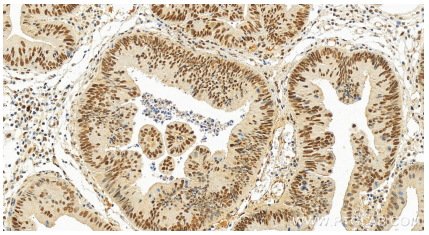
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

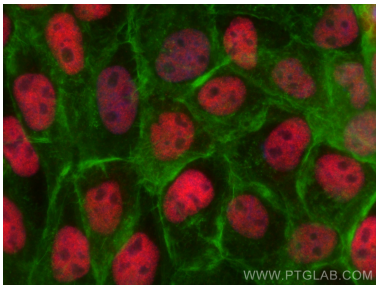
Selected Validation Data



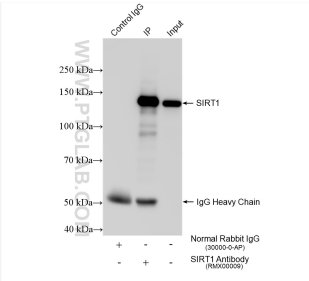
Various lysates were subjected to SDS PAGE followed by western blot with RMX00009 (SIRT1 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



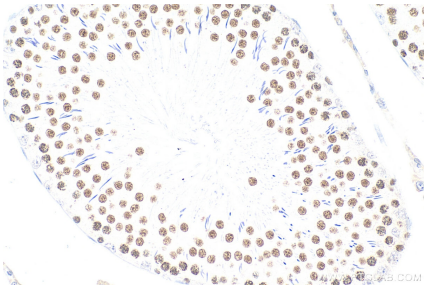
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using RMX00009 (SIRT1 antibody) at dilution of 1:500 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



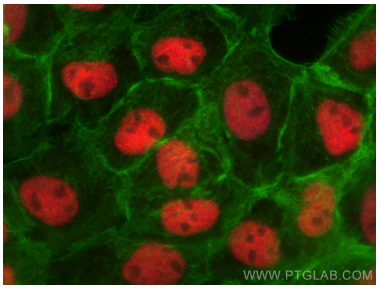
Immunofluorescent analysis of (4% PFA) fixed A431 cells using SIRT1 antibody (RMX00009) at dilution of 1:1000 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4), CL488-phalloidin (green).



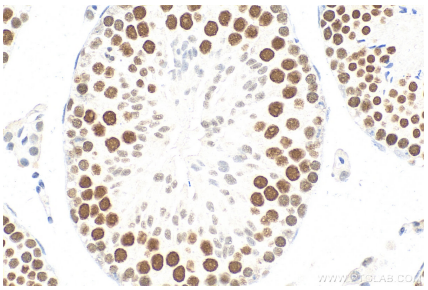
IP result of anti-SIRT1 (IP:RMX00009, 4ug; Detection:RMX00009 1:4000) with HeLa cells lysate 1200 ug.



Immunohistochemical analysis of paraffin-embedded rat testis tissue slide using RMX00009 (SIRT1 antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed A431 cells using SIRT1 antibody (RMX00009) at dilution of 1:500 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4), CL488-phalloidin (green).



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using RMX00009 (SIRT1 antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).