

SIRT1 Monoclonal antibody

Catalog Number: 60303-1-Ig

Featured Product

78 Publications

Basic Information

Catalog Number:

60303-1-Ig

Size:

150ul, Concentration: 2000 ug/ml by Nanodrop;

Source:

Mouse

Isotype:

IgG2b

Immunogen Catalog Number:

AG17677

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:

Protein A purification

CloneNo.:

7F6G6

Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:250-1:1000

IF/ICC: 1:1000-1:4000

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF, ColP, ELISA

Species Specificity:

human

Cited Species:

human, pig, rabbit

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: A549 cells, HeLa cells, Hek-293 cells, LNCaP cells, Jurkat cells, MCF-7 cells

IP: HeLa cells,

IHC: human breast cancer tissue, human testis tissue, human colon tissue

IF/ICC: BT-549 cells,

Background Information

SIRT1, also named as SIRT2L1, 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.

Notable Publications

Author	Pubmed ID	Journal	Application
Jie Liu	36238648	Oxid Med Cell Longev	WB
Xin Peng	34549339	J Mol Neurosci	WB
ChuanCai Liang	36064420	J Orthop Surg Res	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

*** 20ul sizes contain 0.1% BSA

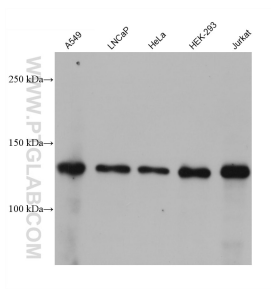
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

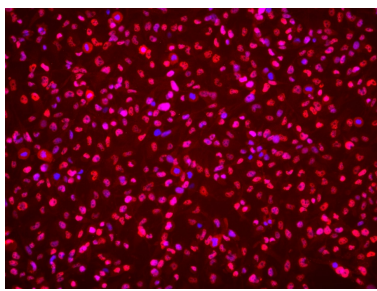
E: proteintech@ptglab.com
W: ptglab.com

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

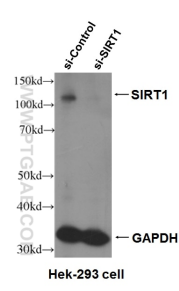
Selected Validation Data



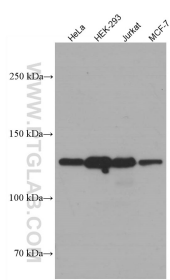
Various lysates were subjected to SDS PAGE followed by western blot with 60303-1-Ig (SIRT1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



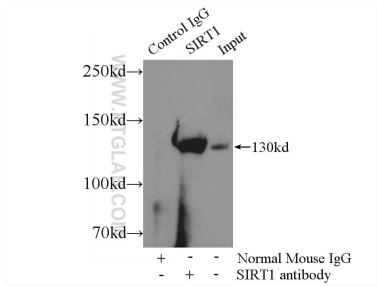
Immunofluorescent analysis of (4% PFA) fixed BT-549 cells using SIRT1 antibody (60303-1-Ig, Clone: 7F6G6) at dilution of 1:2000 and Multi-rAb CoraLite® Plus 594-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO. RGAM004).



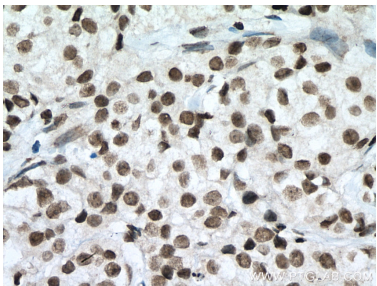
WB result of SIRT1antibody (60303-1-Ig, 1:500) with si-Control and si-SIRT1 transfected HEK-293 cells.



Various lysates were subjected to SDS PAGE followed by western blot with 60303-1-Ig (SIRT1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



IP result of anti-SIRT1 (IP:60303-1-Ig, 5ug; Detection:60303-1-Ig 1:1000) with HeLa cells lysate 2000ug.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 60303-1-Ig (SIRT1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).