

For Research Use Only

SIRT1 Monoclonal antibody

Catalog Number: 60303-1-Ig

Featured Product

53 Publications



Basic Information

Catalog Number: 60303-1-Ig	GenBank Accession Number: BC012499	Purification Method: Protein A purification
Size: 150ul, Concentration: 1800 µg/ml by Nanodrop and 1200 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 23411	CloneNo.: 7F6G6
Source: Mouse	UNIPROT ID: Q96EB6	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 1:50-1:500
Isotype: IgG2b	Full Name: sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae)	
Immunogen Catalog Number: AG17677	Calculated MW: 747 aa, 82 kDa	
	Observed MW: 110-130 kDa	

Applications

Tested Applications:

WB, IP, IF, IHC, ELISA

Cited Applications:

WB, IF, IHC, ColP, ELISA

Species Specificity:

human

Cited Species:

human, pig

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: HeLa cells,

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 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 pH 7.3.

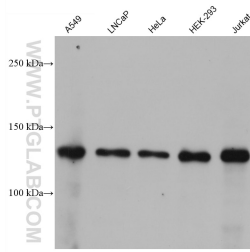
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

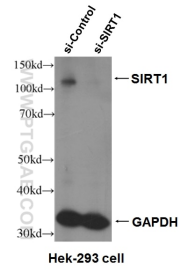
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

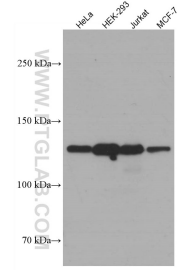
Selected Validation Data



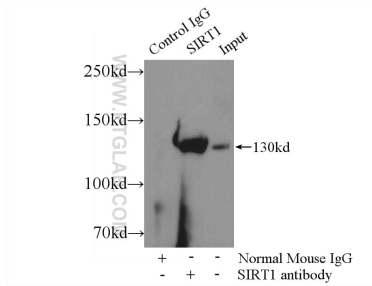
Various lysates were subjected to SDS PAGE followed by western blot with 60303-1-Ig (SIRT1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



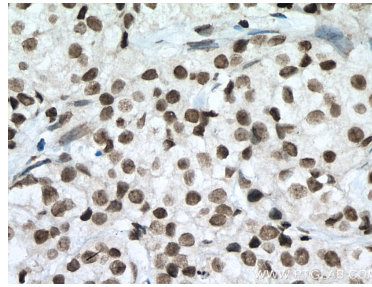
WB result of SIRT1 antibody (60303-1-Ig, 1:500) with si-Control and si-SIRT1 transfected HEK-293 cells.



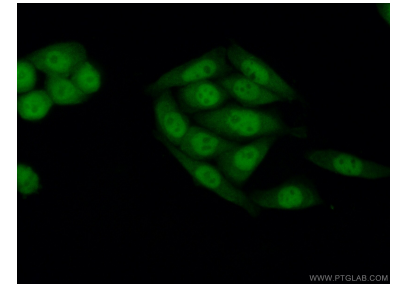
Various lysates were subjected to SDS PAGE followed by western blot with 60303-1-Ig (SIRT1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



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).



Immunofluorescent analysis of (10% Formaldehyde) fixed HeLa cells using 60303-1-Ig (SIRT1 antibody) at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).