

For Research Use Only

SIRT1 Recombinant antibody

Catalog Number: 82790-4-RR

Featured Product



Basic Information

Catalog Number:

82790-4-RR

Size:

100ul, Concentration: 400 ug/ml by Nanodrop;

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

Purification Method:

Protein A purification

CloneNo.:

2F11

Recommended Dilutions:

WB 1:1000-1:8000

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

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IF/ICC, IP, ELISA

Species Specificity:

human

Positive Controls:

WB : HEK-293 cells, HeLa cells, MCF-7 cells, Jurkat cells, K-562 cells

IP : HEK-293 cells,

IF/ICC : HepG2 cells,

Background Information

SIRT1, also named as 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 shuttles 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- κ B. 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

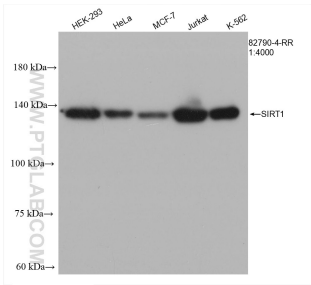
For technical support and original validation data for this product please contact:

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

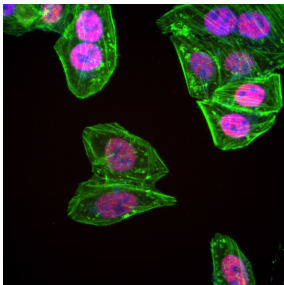
E: proteintech@ptglab.com
W: ptglab.com

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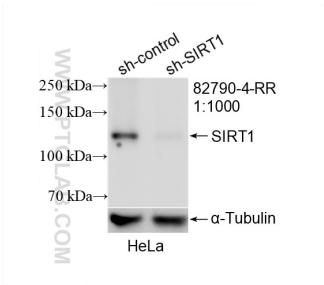
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 82790-4-RR (SIRT1 antibody) at dilution of 1:4700 incubated at room temperature for 1.5 hours.

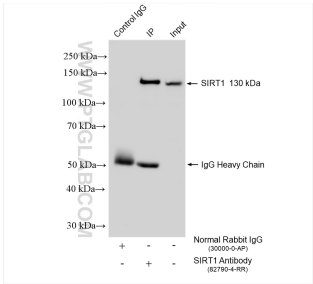


Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using SIRT1 antibody (82790-4-RR, Clone: 2F11) at dilution of 1:400 and Multi-rAb CoraLite® Plus 594-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR004).

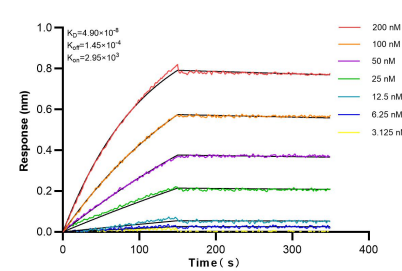


WB result of SIRT1 antibody (82790-4-RR; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SIRT1 transfected HeLa cells.

Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using SIRT1 antibody (82790-4-RR, Clone: 2F11) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



IP result of anti-SIRT1 (IP: 82790-4-RR, 4ug; Detection: 82790-4-RR 1:1000) with HEK-293 cells lysate 1360 ug.



Bi-layer interferometry (BLI) kinetic assays of 82790-4-RR against Human SIRT1 were performed. The affinity constant is 4.90 nM.