

SIRT1 Recombinant antibody, PBS Only

Catalog Number: **82790-4-PBS**

Basic Information

Catalog Number: 82790-4-PBS	GenBank Accession Number: BC012499	Purification Method: Protein A purification
Size: 100ug , Concentration: 1mg/ml by Nanodrop;	GeneID (NCBI): 23411	CloneNo.: 2F11
Source: Rabbit	UNIPROT ID: Q96EB6	
Isotype: IgG	Full Name: sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae)	
Immunogen Catalog Number: AG3808	Calculated MW: 747 aa, 82 kDa	
	Observed MW: 110-130 kDa	

Applications

Tested Applications:
WB, IP, IF/ICC, Indirect ELISA

Species Specificity:
Human

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 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

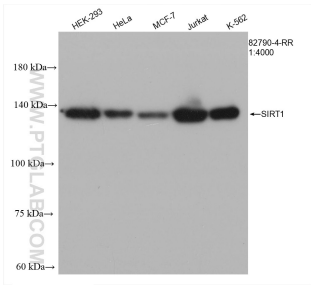
Storage:
Store at -80°C.

Storage Buffer:
PBS Only

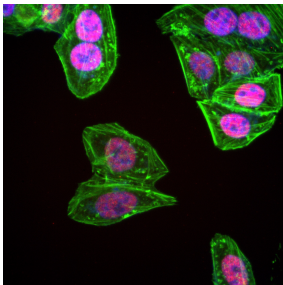
For technical support and original validation data for this product please contact:
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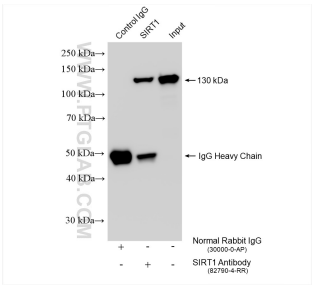
Selected Validation Data



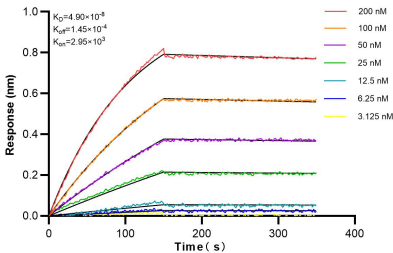
Various lysates were subjected to SDS PAGE followed by western blot with 82790-4-RR (SIRT1 antibody) at dilution of 1:4700 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82790-4-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 82790-4-PBS in a different storage buffer formulation.



IP result of anti-SIRT1 (IP:82790-4-RR, 4ug; Detection:82790-4-RR 1:1000) with HEK-293 cells lysate 1575 ug. This data was developed using the same antibody clone with 82790-4-PBS in a different storage buffer formulation.



Bioluminescence resonance energy transfer (BRET) kinetic assays of 82790-4-RR against Human SIRT1 were performed. The affinity constant is 4.90 nM.