

Product Name: KD-Validated SIRT3 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00325**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:250-1:500
Molecular Weight	Calculated MW: 43.6kDa

Antigen Information

Gene Name	SIRT3 SIRT3; Sirtuin 3; SIR2L3; NAD-Dependent Protein Deacetylase Sirtuin-3, Mitochondrial; Regulatory Protein SIR2 Homolog 3; SIR2-Like Protein 3; Sirtuin (Silent Mating Type Information Regulation 2 Homolog) 3 (S. Cerevisiae); Sirtuin (Silent Mating Type Information Regulation 2, S.Cerevisiae, Homolog) 3; Mitochondrial Nicotinamide Adenine Dinucleotide-Dependent Deacetylase; Silent Mating Type Information Regulation 2, S.Cerevisiae, Homolog 3; NAD-Dependent Deacetylase Sirtuin-3, Mitochondrial; Sirtuin Type 3; EC 2.3.1.286; Sir2-Like 3; HSIRT3
Alternative Names	
Gene ID	23410.0
SwissProt ID	Q9NTG7
Immunogen	A synthesized peptide derived from human SIRT3

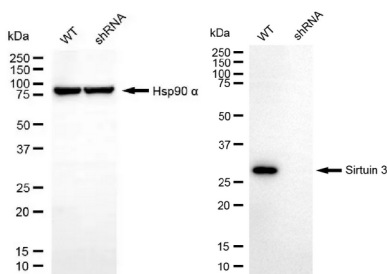
Background

SIRT3 encodes a member of the sirtuin family of class III histone deacetylases, homologs to the yeast Sir2 protein. The encoded protein is found exclusively in mitochondria, where it can eliminate reactive oxygen species, inhibit apoptosis, and prevent the formation of cancer cells. SIRT3 has far-reaching effects on nuclear gene expression, cancer, cardiovascular disease, neuroprotection, aging, and metabolic control. [provided by RefSeq, May 2019]

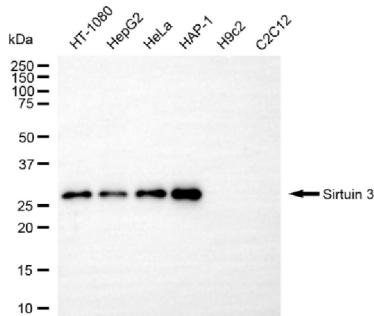
Research Area

Epigenetics and Nuclear Signaling, Cell Biology, Epigenetics and Nuclear Signaling, Cancer, Cardiovascular, Metabolism

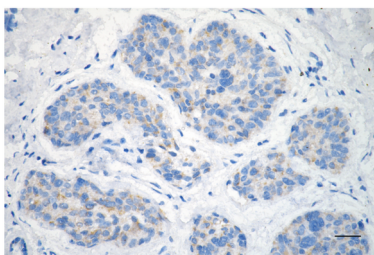
Image Data



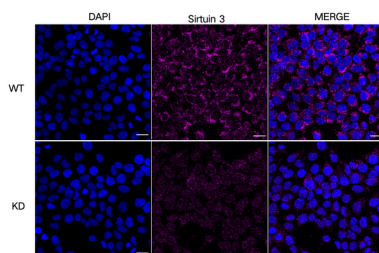
Western blotting analysis using sirtuin 3 antibody (KVA00325). Sirtuin 3 expression in wild-type (WT) and sirtuin 3 (SIRT3) shRNA knockdown (KD) HeLa cells with 25 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with sirtuin 3 antibody (KVA00325, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



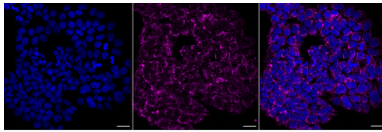
Western blotting analysis using sirtuin 3 antibody (KVA00325). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with sirtuin 3 antibody (KVA00325, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



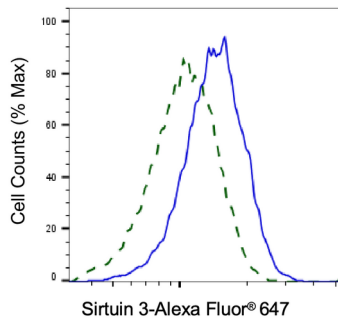
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using sirtuin 3 antibody (KVA00325, 1:500). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells using Sirtuin 3 antibody (KVA00325, 1:1,000). Top panel: wild-type (WT); Bottom panel: Sirtuin 3 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Sirtuin 3 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HAP-1 cells with Sirtuin 3 antibody(KVAb00325, 1:1,000) . Nuclei were stained blue with DAPI; Sirtuin 3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μ m.



Validation of Sirtuin 3 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Sirtuin 3 antibody (KVAb00325, 1:2,000) and analyzed using BD flow cytometer.