Best Tools for immunology Research

SIRT2 Polyclonal Antibody

Catalog No :	YT4303
Reactivity :	Human;Mouse;Rat
Applications :	WB;ELISA;IHC
Target :	SIRT2
Fields :	>>Nicotinate and nicotinamide metabolism;>>Metabolic pathways
Gene Name :	SIRT2
Protein Name :	NAD-dependent protein deacetylase sirtuin-2
Human Gene Id :	22933
Human Swiss Prot No :	Q8IXJ6
Mouse Gene Id :	64383
Mouse Swiss Prot No :	Q8VDQ8
Rat Gene Id :	361532
Rat Swiss Prot No :	Q5RJQ4
Immunogen :	The antiserum was produced against synthesized peptide derived from human SIRT2. AA range:321-370
Specificity :	SIRT2 Polyclonal Antibody detects endogenous levels of SIRT2 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500-2000;IHC 1:50-300; ELISA 2000-20000

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 43kD

Cell Pathway : Protein_Acetylation

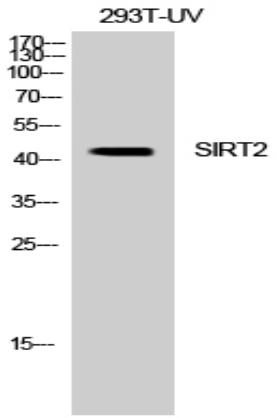
Background : This gene encodes a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have not yet been determined; however, yeast sirtuin proteins are known to regulate epigenetic gene silencing and suppress recombination of rDNA. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity. The protein encoded by this gene is included in class I of the sirtuin family. Several transcript variants are resulted from alternative splicing of this gene. [provided by RefSeq, Jul 2010],

Function : catalytic activity:NAD(+) + an acetylprotein = nicotinamide + O-acetyl-ADP-ribose + a protein.,cofactor:Binds 1 zinc ion per subunit.,developmental stage:Peaks during mitosis. After mitosis, it is probably degraded by the 26S proteasome.,enzyme regulation:Inhibited by Sirtinol, A3 and M15 small molecules. Inhibited by nicotinamide.,function:NAD-dependent deacetylase, which deacetylates the 'Lys-40' of alpha-tubulin. Involved in the control of mitotic exit in the cell cycle, probably via its role in the regulation of cytoskeleton. Despite some ability to deacetylate histones in vitro, it is unlikely in vivo.,PTM:Phosphorylated at the G2/M transition of the cell cycle.,similarity:Belongs to the sirtuin family.,similarity:Contains 1 deacetylase sirtuin-type domain.,subcellular location:Colocalizes with microtubules.,subunit:Interacts with HDAC6, suggesting that these proteins belong to a la

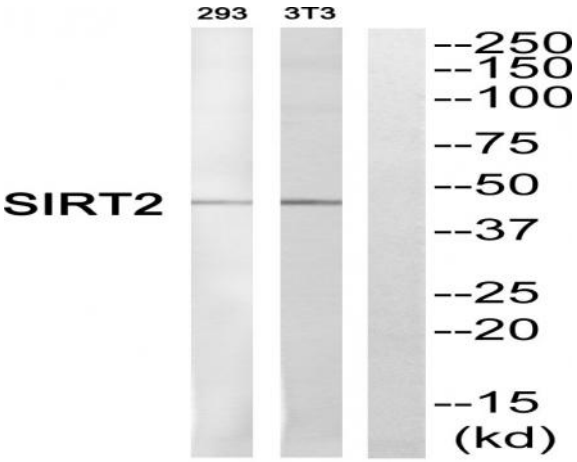
Subcellular Location : Nucleus . Cytoplasm, perinuclear region . Cytoplasm . Cytoplasm, cytoskeleton . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole . Cytoplasm, cytoskeleton, spindle . Midbody . Chromosome . Perikaryon . Cell projection . Cell projection, growth cone . Myelin membrane . Localizes in the cytoplasm during most of the cell cycle except in the G2/M transition and during mitosis, where it is localized in association with chromatin and induces deacetylation of histone at 'Lys-16' (H4K16ac) (PubMed:17726514, PubMed:23468428). Colocalizes with KMT5A at mitotic foci (PubMed:23468428). Colocalizes with CDK1 at centrosome during prophase and splindle fibers during metaphase (PubMed:17488717). Colocalizes w

Expression : Isoform 1 is expressed in heart, liver and skeletal muscle, weakly expressed in the cortex. Isoform 2 is strongly expressed in the cortex, weakly expressed in heart and liver. Weakly expressed in several malignancies including breast, liver, brain, kidney and prostate cancers compared to normal tissues. Weakly expressed in glioma cell lines compared to normal brain tissues (at protein level). Widely expressed. Highly expressed in heart, brain and skeletal muscle, while it is weakly expressed in placenta and lung. Down-regulated in many gliomas suggesting that it may act as a tumor suppressor gene in human gliomas possibly through the regulation of microtubule network.

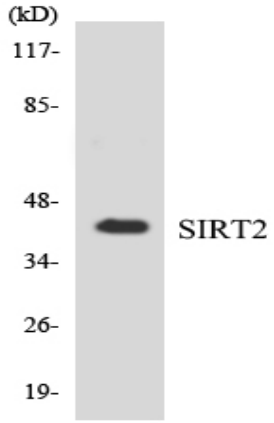
Products Images



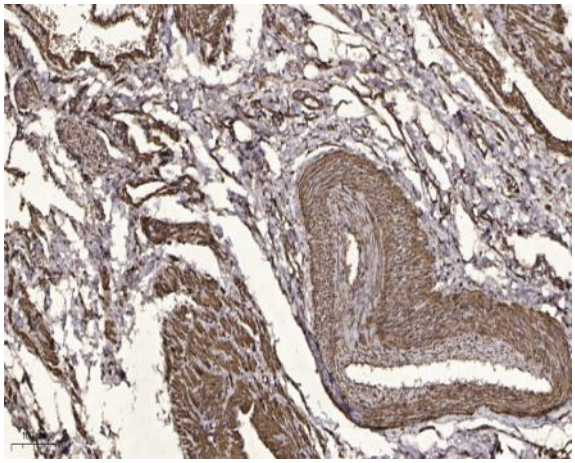
Western Blot analysis of 293 cells using SIRT2 Polyclonal Antibody diluted at 1:1000



Western blot analysis of SIRT2 Antibody. The lane on the right is blocked with the SIRT2 peptide.



Western blot analysis of the lysates from RAW264.7cells using SIRT2 antibody.



Immunohistochemical analysis of paraffin-embedded human oophoroma. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).