

SIRT6 monoclonal antibody

Catalog: MB66659

Host: Mouse

Reactivity: Human, Mouse, Rat, Monkey

BackGround:

The Silent Information Regulator (Sir2) family of genes is a highly conserved group of genes that encode nicotinamide adenine dinucleotide (NAD)-dependent protein deacetylases, also known as class III histone deacetylases. The first discovered and best characterized of this family is *Saccharomyces cerevisiae* Sir2, which is involved in silencing of mating type loci, telomere maintenance, DNA damage response, and cell aging. SirT6, a mammalian homolog of Sir2, is a nuclear, chromatin-associated protein that promotes the normal maintenance of genome integrity mediated by the base excision repair (BER) pathway. The BER pathway repairs single-stranded DNA lesions that arise spontaneously from endogenous alkylation, oxidation, and deamination events. SirT6 deficient mice show increased sensitivity to DNA-damaging agents, including the alkylating agents MMS and H₂O₂. In addition, these mice show genome instability with increased frequency of fragmented chromosomes, detached centromeres, and gaps. SirT6 may regulate the BER pathway by deacetylating DNA Pol β or other core components of the pathway.

Product:

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Molecular Weight:

~ 42 kDa

Swiss-Prot:

Q8N6T7

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IF/ICC (1/50 - 1/100), IP (1/10 - 1/50)

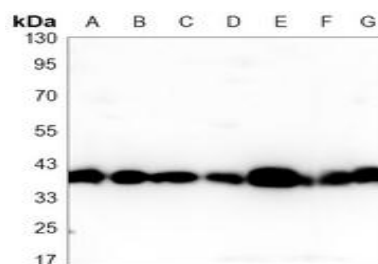
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

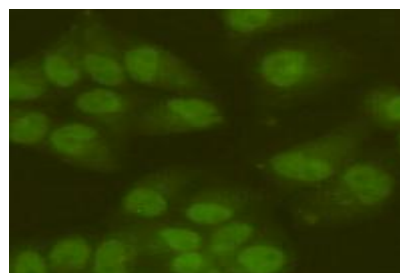
Specificity:

Recognizes endogenous levels of SIRT6 protein.

DATA:



Western blot analysis of SIRT6 expression in Jurkat (A), MCF7 (B), HCT116 (C), K562 (D), COS7 (E), C2C12 (F), NIH3T3 (G) whole cell lysates.



Immunofluorescent analysis of SIRT6 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

Note:

For research use only, not for use in diagnostic procedure.

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PRODUCT DATA SHEET

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