

bs-3416R**[Primary Antibody]****phospho-SirT1 (Ser27) Rabbit pAb****BioSS**
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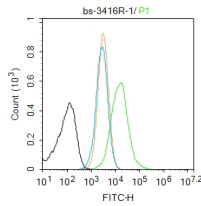
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— DATASHEET —

<p>Host: Rabbit</p> <p>Clonality: Polyclonal</p> <p>GenelD: 23411</p> <p>Target: SirT1 (Ser27)</p> <p>Immunogen: KLH conjugated Synthesised phosphopeptide derived from human SirT1 around the phosphorylation site of Ser27: AS(p-S)PA.</p> <p>Purification: affinity purified by Protein A</p> <p>Concentration: 1mg/ml</p> <p>Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.</p> <p>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. Alternative splicing results in multiple transcript variants. Function : SirtT1 75 kDa fragment: catalytically inactive 75SirT1 may be involved in regulation of apoptosis. May be involved in protecting chondrocytes from apoptotic death by associating with cytochrome C and interfering with apoptosome assembly. Subunit : Found in a complex with PCAF and MYOD1. Component of the eNoSC complex, composed of SIRT1, SUV39H1 and RRP8. Interacts with HES1, HEY2 and PML. Interacts with RPS19BP1/AROS. Interacts with KIAA1967/DBC1 (via N-terminus); the interaction disrupts the interaction between SIRT1 and p53/TP53. Interacts with SETD7; the interaction induces the dissociation of SIRT1 from p53/TP53 and increases p53/TP53 activity. Interacts with MYCN, NR1I2, CREBZF, TSC2, TLE1, FOS, JUN, NR0B2, PPARG, NCOR, IRS1, IRS2 and NMNAT1. Interacts with HNF1A; the interaction occurs under nutrient restriction. Interacts with SUZ12; the interaction mediates the association with the PRC4 histone methylation complex which is specific as an association with PCR2 and PCR3 complex variants is not found. Interacts with HIV-1 tat. Subcellular Location : Nucleus, PML body. Cytoplasm. Note=Recruited to the nuclear bodies via its interaction with PML. Colocalized with APEX1 in the nucleus. May be found in nucleolus, nuclear euchromatin, heterochromatin and inner membrane. Shuttles between nucleus and cytoplasm. SirtT1 75 kDa fragment: Cytoplasm. Mitochondrion. Tissue Specificity : Widely expressed. Post-translational modifications : Methylated on multiple lysine residues; methylation is enhanced after DNA damage and is dispensable for deacetylase activity toward p53/TP53. Phosphorylated. Phosphorylated by STK4/MST1, resulting in inhibition of SIRT1-mediated p53/TP53 deacetylation. Phosphorylation by MAPK8/JNK1 at Ser-27, Ser-47, and Thr-530 leads to increased nuclear localization and enzymatic activity. Phosphorylation at Thr-530 by DYRK1A and DYRK3 activates deacetylase activity and promotes cell survival. Phosphorylation by mammalian target of rapamycin complex 1 (mTORC1) at Ser-47 inhibits deacetylation activity. Phosphorylated by CaMK2, leading to increased p53/TP53 and NF-kappa-B p65/RELA deacetylation activity (By similarity). Phosphorylation at Ser-27 implicating MAPK9 is linked to protein stability. There is some ambiguity for some phosphosites: Ser-159/Ser-162 and Thr-544/Ser-545. Proteolytically cleaved by cathepsin B upon TNF-alpha treatment to yield catalytic inactive but stable SirtT1 75 kDa fragment (75SirT1). S-nitrosylated by GAPDH, leading to inhibit the NAD-dependent protein deacetylase activity (By similarity). Similarity : Belongs to the sirtuin family. Contains 1 deacetylase sirtuin-type domain.</p>	<p>Isotype: IgG</p> <p>SWISS: Q96EB6</p> <p>Applications Flow-Cyt (1ug/Test) :</p> <p>Reactivity: Human (predicted: Mouse, Rat)</p> <p>Predicted MW.: 58/81 kDa</p> <p>Subcellular Location: Cytoplasm ,Nucleus</p>
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Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

VALIDATION IMAGES



Blank control:HL-60. Primary Antibody (green line): Rabbit Anti-Phospho-SirT1 (Ser27) antibody (bs-3416R) Dilution: 1 μ g /10⁶ cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF488 Dilution: 1 μ g /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

— SELECTED CITATIONS —

- **[IF=8.2]** Liang Shi-peng. et al. Activated SIRT1 contributes to DPT-induced glioma cell parthanatos by upregulation of NOX2 and NAT10. ACTA PHARMACOL SIN. 2023 Jun;;1-14 WB ;Mouse,Human. 37277492