

Recombinant Phospho-SIRT1(Ser47) Monoclonal Antibody

catalog number: AN302086L

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Reactivity	Human;
Immunogen	phosphorylated human SIRT1(Ser47) peptide
Host	Rabbit
Isotype	IgG, κ
Clone	A810
Purification	Protein A purified
Buffer	PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant.

Applications Recommended Dilution

WB	1:500-1:1000
IHC	1:50-1:200

Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	Ice bag

Background

SIRT1, the mammalian ortholog of Sir2, is a nuclear protein implicated in the regulation of many cellular processes, including apoptosis, cellular senescence, endocrine signaling, glucose homeostasis, aging, and longevity. Targets of SirT1 include acetylated p53, p300, Ku70, forkhead (FoxO) transcription factors, PPARγ, and the PPARγ coactivator-1α (PGC-1α) protein. Deacetylation of p53 and FoxO transcription factors represses apoptosis and increases cell survival. Deacetylation of PPARγ and PGC-1α regulates the gluconeogenic/glycolytic pathways in the liver and fat mobilization in white adipocytes in response to fasting. SirT1 deacetylase activity is inhibited by nicotinamide and activated by resveratrol. In addition, SirT1 activity may be regulated by phosphorylation, as it is phosphorylated at Ser27 and Ser47 in vivo; however, the function of these phosphorylation sites has not yet been determined.

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