

## Product datasheet for **TA336790**

### SIRT1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Knockdown Validated, Simple Western: 1:100, Immunohistochemistry: 1:150, Immunocytochemistry/ Immunofluorescence: 1:10-1:500, Western Blot: 1:1000, Immunohistochemistry-Paraffin: 1:150, Knockout Validated
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A genomic peptide made to an internal region of the human SIRT1 protein (within residues 400-550). [Swiss-Prot Q96EB6]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	sirtuin 1
Database Link:	<a href="#">NP_036370</a> <a href="#">Entrez Gene 23411 Human</a> <a href="#">Q96EB6</a>



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**Background:**

SIRT1 (mammalian homologue of silent information regulator 2), is a NAD-dependent class III deacetylase which belongs to mammalian sirtuin family and generates enzymatic activity in the presence of NAD<sup>+</sup>. SIRT1 is primarily localized in the nucleus and deacetylates not only histones but also a number of other transcription factors/cofactors, such as p53, FOXO (forkhead), PPAR- gamma coactivator-1 alpha, and NFkB, thus affecting the critical cellular pathways involved in stress response. SIRT1 plays an important role in the energy metabolism by interacting with PPAR-gamma and inhibiting its transcriptional activity towards genes mediating fat storage through docking with its cofactors. SIRT1 also plays an essential function in mediating cellular survival by deacetylating substrates such as FOXO, p53, DNA repair factor Ku70 and NFkB. SIRT1 has been shown to get upregulated in response to stress-induced cell death, especially upon oxidative stress and calorie restriction, and SIRT1 knockout mice fail to extend lifespan induced by calorie restriction. Moreover, expression of SIRT1 gets increased to promote neuronal survival in Alzheimer's disease model as well as in primary neurons subjected to neurotoxic insult.

**Synonyms:**

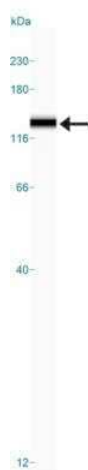
SIR2; SIR2alpha; SIR2L1

**Note:**

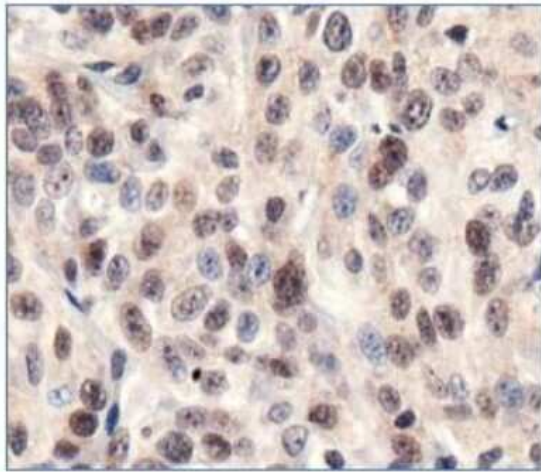
This SIRT1 antibody is useful in Immunocytochemistry/Immunofluorescence, Immunohistochemistry paraffin embedded sections and Western blot. In Western blot a band is seen ~105 kDa.

**Protein Families:**

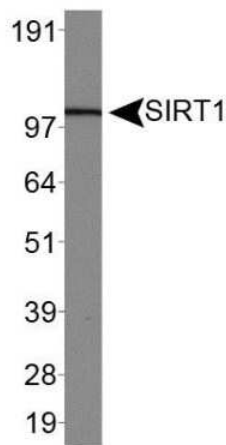
Druggable Genome, Stem cell - Pluripotency, Transcription Factors

**Product images:**

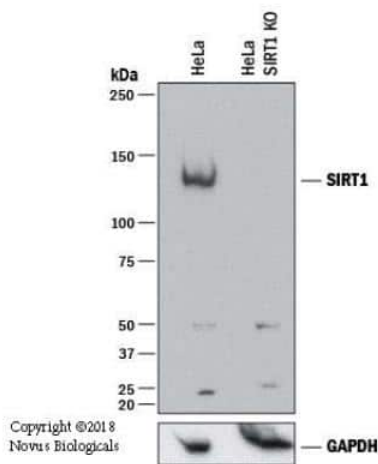
Simple Western: Sirtuin 1/SIRT1 Antibody TA336790 - Simple Western lane view shows a specific band for SIRT1 in 0.5 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Immunohistochemistry: Sirtuin 1/SIRT1 Antibody TA336790 - Immunohistochemical analysis of SIRT1 in human renal cell carcinoma.



Western Blot: Sirtuin 1/SIRT1 Antibody TA336790 - Analysis of SIRT1 in HeLa whole cell lysates.



Knockout Validated: Sirtuin 1/SIRT1 Antibody TA336790 - Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and SIRT1 knockout (KO) HeLa cell line. PVDF membrane was probed with 1:1000 of Rabbit Anti-Human SIRT1 Polyclonal Antibody (Catalog # TA336790) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog #HAF008). Specific band was detected for SIRT1 at approximately 130 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions.