

## SIRT1 Monoclonal Antibody

### Description

<b>Product type</b>	Antibody
<b>Code</b>	BT-MCA3237
<b>Host</b>	Mouse
<b>Isotype</b>	Mouse IgG1
<b>Size</b>	100µL, 50µL
<b>Immunogen</b>	Purified recombinant fragment of human SIRT1 expressed in E. Coli.
<b>Mol wt</b>	120kDa
<b>Species reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Recommended application</b>	WB,IHC,ICC,FCM
<b>Concentration</b>	N/A
<b>Full name</b>	N/A
<b>Synonyms</b>	SIR2L1;SIRT1

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

### Background

The Sir2 protein in yeast is known to function in transcriptional silencing processes through the deacetylation of histones H3 and H4. The more recently described human homologue of Sir2, known as SIRT1, has been found to associate with the tumor suppressor protein p53. SIRT1 binds and deacetylates p53 with specificity for its C-terminal Lys382 residue in response to the upregulation of promyelocytic leukemia protein (PML) nuclear bodies or oncogenic Ras. The deacetylation of p53 SIRT1 has been shown to negatively regulate p53-mediated transcription, preventing cellular senescence and apoptosis induced by DNA damage and stress. SIRT1 has the closest homology to the yeast Sir2p and is widely expressed in fetal and adult tissues, with high expression in heart, brain and skeletal muscle and low expression in lung and placenta. SIRT1 regulates the p53-dependent DNA damage response pathway by binding to and deacetylating p53, specifically at Lysine 382.

### Recommended Dilution

WB: 1:500 - 1:2000

IHC-p: 1:200 - 1:1000

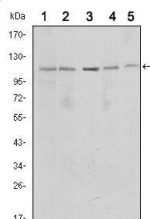
ICC: 1:200 - 1:1000

FCM: 1:200 - 1:400

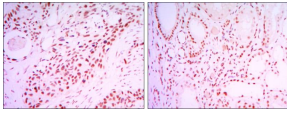
ELISA: 1:10000

Not yet tested in other applications.

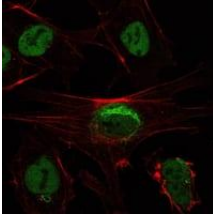
### Images



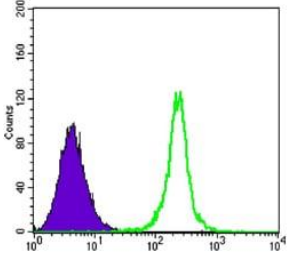
Western blot analysis using SIRT1 mouse mAb against MCF-7 (1), Jurkat (2), HeLa (3), HEK293 (4) and A549 (5) cell lysate.



Immunohistochemical analysis of paraffin-embedded lung cancer tissues (left) and kidney cancer tissues (right) using SIRT1 mouse mAb with DAB staining.



Immunofluorescence analysis of NTERA-2 cells using SIRT1 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of K562 cells using SIRT1 mouse mAb (green) and negative control (purple).

### Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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