

## PRODUCT INFORMATION SHEET

### Mouse Monoclonal Antibody to SIRT1

Format: PURE      RUO      REF      IQP-1449P      Volume: 0.1ml



#### Description

<b>Clone</b>	1F3
<b>Isotype</b>	Mouse IgG1
<b>Specificity</b>	SIRT1
<b>Alternative names</b>	SIR2L1; SIRT1
<b>Species</b>	Human, Monkey
<b>Immunogen</b>	Purified recombinant fragment of human SIRT1 expressed in E. Coli.
<b>Mw</b>	120kDa
<b>Format</b>	Ascitic fluid containing 0.03% sodium azide.

**Summary** 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.

**Applications** Western Blotting: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: Propose dilution 1/10000. Not yet tested in other applications. Determining optimal working dilutions by titration test.

#### Limitations

1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC and CyQ. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. IQ Products has not characterized the effect of the presence of therapeutic antibodies on the performance of this reagent.
3. Reagents can be used in different combinations, therefore laboratories need to become familiar performance characteristics of each antibody in relation with the combined markers in normal and abnormal samples.
4. Reagent data performance is based on EDTA-treated blood. Reagent performance can be affected by the use of other anticoagulants.



### Handling and Storage

Antibodies are supplied in 0.01 M sodium phosphate, 0.15 M NaCl; pH 7.3, 0.03% sodiumazide (NaN<sub>3</sub>) or as ascetic fluid containing 0.03% sodiumazide. Store the vials at 2-8 °C for a maximum of 2 weeks and store at -20°C for longer term storage. Monoclonal antibodies should be protected from prolonged exposure to light when conjugated with fluorochromes. Reagents are stable for the period shown on the vial label when stored properly.

### Warranty

Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

### Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

### Warning

All products contain sodiumazide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

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- References**
1. Clin Cancer Res. 2009 Jul 1;15(13):4453-9.
  2. Cell. 2009 Jul 23;138(2):389-403.
  3. J Biol Chem. 2009 Oct 16;284(42):28762-74.
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### Explanation of used symbols



REF



RUO

LOT



EC REP



Consult instructions for use

Catalogue number

Sufficient for

Caution, consult accompanying document

Keep away from (sun)light

Biological risks

Temperature limitation (°C)

For Research Use Only

Batch code

Use by yyyy-mm-dd

Manufacturer

Authorized Representative in the European Community

Conformité Européenne (European Conformity)



**IQ Products**  
bright fluorescence

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		<b>Label - tandem</b>	<b>Ex -max (nm)</b>	<b>Em -max (nm)</b>
P	PURE	purified material	-	-
F	FITC	FITC	488	519
R	R-PE	PE	488, 532	578
C	CyQ	PE-Cy5.18	488, 532	667
A	APC		595, 633, 635, 647	660
PC	PerCP		488, 532	678
PCC	PerCP-Cy5.5		488, 532	695

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