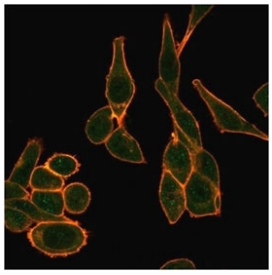
SIRT1 Antibody [clone PCRP-SIRT1-1E11] (V9647)

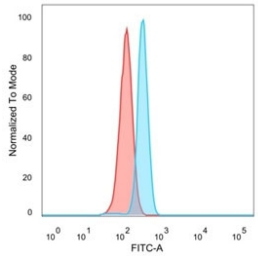
Catalog No.	Formulation	Size
V9647-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9647-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9647SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

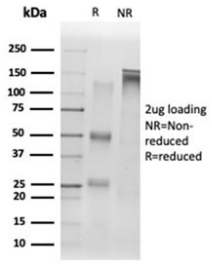
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	PCRP-SIRT1-1E11
Purity	Protein A/G affinity
UniProt	Q96EB6
Localization	Cytoplasm, Mitochondrion and Nucleus
Applications	ELISA (order BSA-free Format For Coating) : Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml Western Blot : 1-2ug/ml
Limitations	This SIRT1 antibody is available for research use only.



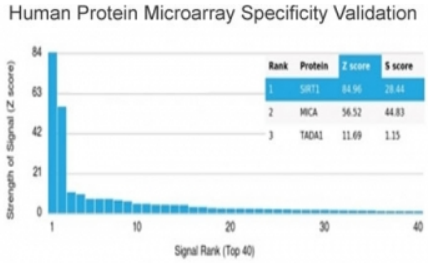
Immunofluorescent staining of PFA-fixed human HeLa cells using SIRT1 antibody (green, clone PCRP-SIRT1-1E11) and phalloidin (red).



FACS staining of PFA-fixed human HeLa cells with SIRT1 antibody (blue, clone PCRP-SIRT1-1E11) and isotype control (red).



SDS-PAGE analysis of purified, BSA-free SIRT1 antibody (clone PCRP-SIRT1-1E11) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SIRT1 antibody (clone PCRP-SIRT1-1E11). These results demonstrate the foremost specificity of the PCRP-SIRT1-1E11 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

The silent information regulator (SIR2) family of genes are highly conserved from prokaryotes to eukaryotes and are involved in diverse processes, including transcriptional regulation, cell cycle progression, DNA damage repair and aging. In S. cerevisiae, Sir2p deacetylates histones in an NAD-dependent manner, which regulates silencing at the telomeric, rDNA and silent matingtype loci. Sir2p is the founding member of a large family, designated sirtuins, which contain a conserved catalytic domain. The human homologs, which include SIRT1-7, are divided into four main branches: SIRT1-3 are class I, SIRT4 is class II, SIRT5 is class III and SIRT6-7 are class IV. 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.

Application Notes

Optimal dilution of the SIRT1 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the SIRT1 antibody.

Storage

Aliquot the SIRT1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.