



碧云天生物技术/Beyotime Biotechnology  
 订货热线: 400-1683301或800-8283301  
 订货e-mail: order@beyotime.com  
 技术咨询: info@beyotime.com  
 网址: http://www.beyotime.com

## SIRT3 Rabbit Polyclonal Antibody (KO Validated)

产品编号	产品名称	包装
AF5303	SIRT3 Rabbit Polyclonal Antibody (KO Validated)	50µl

### 产品简介:

来源	用途	交叉反应性	理论分子量	实际分子量
Rabbit	WB, IHC	H, M, R	28/43kDa	28kDa

WB, Western blot; IP, Immunoprecipitation; IF, Immunofluorescence; IHC, Immunohistochemistry; ICC, Immunocytochemistry; FC, Flow Cytometry; ChIP, Chromatin Immunoprecipitation Assay; ChIP-seq, ChIP-sequencing.

H, Human; M, Mouse; R, Rat; C, Chicken; Cw, Cow; Dg, Dog; Gp, Guinea pig; Hm, Hamster; Hr, Horse; Mk, Monkey; Pg, Pig; Rb, Rabbit; S, Sheep; Z, Zebrafish; All, all species expected.

- 配套提供了 Western 一抗稀释液, 可以用于 Western 检测或其它适当用途时的一抗稀释。
- 建议抗体使用时的稀释比例如下(实际使用时需根据抗原水平的高低作适当调整):

WB	IP	IF	IHC	ICC	FC	ChIP	ChIP-seq
1:500-1:1000	-	-	1:20-1:50	1:20-1:50	-	-	-

- 抗体详细信息如下:

About this Antibody	
Name	SIRT3 Rabbit Polyclonal Antibody (KO Validated)
Category	Rabbit Polyclonal Antibody (pAb); Primary antibody
Isotype	IgG
Purification method	Affinity purification
Positive samples	SW620
Cellular location	Mitochondrion matrix
Customer validation	WB (Human)
About the Immunogen	
Immunogen	A synthetic synthetic peptide of human SIRT3 (NP_036371.1).
Sequence	QRFLLVVDFPMADLLLILGTSLEVEPFASLTEAVRSSVPRLINRDLVGPLAWHPRSRDVAQLG DVVHGVESLVELLGWTEEMRDLVQRETGKLDGPK
Gene ID	23410
Swiss Prot	Q9NTG7
Synonyms	SIRT3; SIR2L3; sirtuin 3
Category	Protein Acetylation; Fatty acid pathway; Epigenetics
Background	The Silent Information Regulator (SIR2) family of genes is a highly conserved group of genes that encode nicotinamide adenine dinucleotide (NAD)-dependent protein deacetylases, also known as Class III histone deacetylases. The first discovered and best characterized of these genes is <i>Saccharomyces cerevisiae</i> Sir2, which is involved in silencing of mating type loci, telomere maintenance, DNA damage response and cell aging. SIRT3, a mammalian homolog of Sir2, exists in human cells in two forms. The full-length 44 kDa protein localizes to the nucleus, while a processed 28 kDa protein lacking 142 amino terminal residues localizes exclusively to the mitochondria. The single murine form of SIRT3 is equivalent to the processed human SIRT3 protein. Full-length SIRT3 protein is processed in the mitochondrial matrix by the mitochondrial matrix processing peptidase (MMP). Both full-length and processed forms of SIRT3 are enzymatically active and de-acetylate histone H3 at Lys9 and

	histone H4 at Lys16 in vitro . SIRT3 also de-acetylates Lys642 of acetyl-CoA synthetase 2 (AceCS2) and activates AceCS2 activity in the mitochondria. Restricted caloric intake, which is linked to increased lifespan in multiple organisms, increases SIRT3 expression in white and brown adipocytes of obese mice, suggesting a role for SIRT3 in aging. Two observations implicate SIRT3 in the regulation of mitochondrial thermogenesis. First, exposure to cold temperatures increases SIRT3 expression in brown adipocytes, while elevated temperatures reduce SIRT3 expression. Second, over-expression of SIRT3 results in increased levels of the mitochondrial uncoupling protein 1 (UCP1). SIRT3 protein levels are also elevated in certain breast cancers.
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**包装清单:**

产品编号	产品名称	包装
AF5303	SIRT3 Rabbit Polyclonal Antibody (KO Validated)	50µl
AZ050	Western一抗稀释液	50ml
—	说明书	1份

**保存条件:**

SIRT3 Rabbit Polyclonal Antibody (KO Validated) -20°C保存, Western一抗稀释液-20°C或4°C保存, 一年有效。Western一抗稀释液优先推荐4°C保存, 长期不使用可以考虑-20°C保存, 但冻融可能会导致出现轻微的浑浊和少量不溶物。

**注意事项:**

- 如果本抗体用于Western blot (WB)、免疫荧光(IF)、免疫细胞化学(ICC)等实验, 请注意回收使用过的稀释抗体。回收的抗体通常至少可以重复使用5-10次。稀释后的抗体, 包括已经使用过的稀释抗体, 请4°C保存。
- 回收后重复使用的抗体, 使用方法同新鲜稀释的抗体。如果在重复使用过程中发现抗体出现轻微混浊现象, 可以10,000g离心1-3分钟, 取上清用于后续检测。如果回收的抗体出现明显的絮状物或长霉长菌等情况, 则可以考虑废弃该抗体。
- 提供的Western一抗稀释液也可以用于免疫荧光(IF)、免疫组化(IHC)、免疫细胞化学(ICC)等适当用途。如果希望获得最佳的检测效果, 请考虑使用上述检测专用的一抗稀释液。
- 本产品仅限于专业人员的科学研究用, 不得用于临床诊断或治疗, 不得用于食品或药品, 不得存放于普通住宅内。
- 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

**使用说明:**

请根据抗体的实际用途选择相应的使用方法。

**1. Western检测:**

- 按照推荐的稀释比例用碧云天提供的Western一抗稀释液稀释抗体。
- 把经过封闭的蛋白膜与稀释好的一抗4°C缓慢摇动过夜或室温缓慢摇动2小时, 确保稀释的抗体至少能在摇动的瞬间覆盖蛋白膜。
- 回收稀释的一抗, 4°C保存以备下次继续使用。
- 按照 Western 的实验步骤进行后续的洗涤、二抗孵育、洗涤和检测等操作。具体操作可以参考如下网页:  
<http://www.beyotime.com/support/western.htm>

**2. 免疫染色:**

可以使用碧云天生产的免疫染色一抗稀释液(P0103)稀释抗体, 使用后注意回收稀释好的一抗, 具体操作可以参考如下网页:  
<http://www.beyotime.com/support/immunol-staining.htm>

**3. 其它实验操作请自行参考适当的protocol进行。**

**4. 代表性图片:**



Fig. 1. Western blot analysis of extracts of SW620 cells, using SIRT3 antibody at 1:1000 dilution. Secondary antibody: HRP-labeled Goat Anti-Rabbit IgG(H+L) (A0208) at 1:1000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: QuickBlock™ Blocking Buffer (P0231). Detection: BeyoECL Star (P0018A). Exposure time:1s.

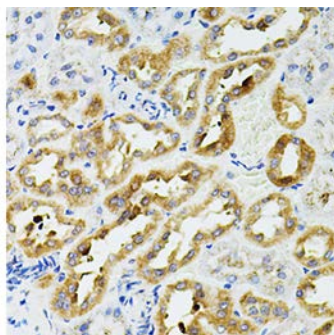


Fig. 3. Immunohistochemistry of paraffin-embedded rat kidney using SIRT3 antibody at dilution of 1:100 (40x lens).

Fig. 2. Western blot analysis of extracts from normal (control) and SIRT3 knockout (KO) HeLa cells, using SIRT3 antibody at 1:500 dilution. Secondary antibody: HRP-labeled Goat Anti-Rabbit IgG(H+L) (A0208) at 1:1000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: QuickBlock™ Blocking Buffer (P0231). Detection: BeyoECL Star (P0018A). Exposure time:1s.

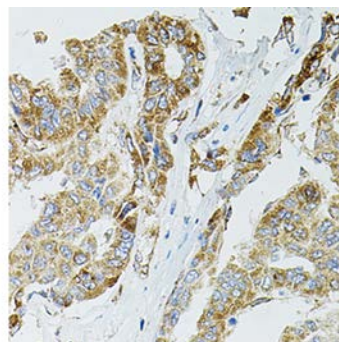


Fig. 4. Immunohistochemistry of paraffin-embedded human liver cancer using SIRT3 antibody at dilution of 1:100 (40x lens).

#### 相关产品:

产品编号	产品名称	包装
E6001	MiniProGel™蛋白制胶与电泳系统(4胶)	1套
E6005	MiniProGel™蛋白制胶与电泳系统(2胶)	1套
E6050	MiniBlot™蛋白转膜系统	1套
E6150	MiniProGel™蛋白制胶、电泳与转膜系统(2胶/2膜)	1套
E6155	MiniProGel™蛋白制胶、电泳与转膜系统(4胶/2膜)	1套
E6159	MiniProGel™蛋白制胶、电泳与转膜系统(4胶/4膜)	1套
E6080	BeyoPower™中电流电源(300V/600mA/100W)	1套
E6085	BeyoPower™高电流电源(300V/2000mA/200W)	1套
E6600	TissueMaster™手持式组织研磨仪	1套
EI600	BeyoImager™ 600化学发光成像系统	1套
FFP24	PVDF膜(进口分装, 6.6×8.5cm, 0.2µm)	20张/包装
FFP32	PVDF膜(进口分装, 6.6×8.5cm, 0.45µm)	20张/包装
FFP51	转印滤纸(7.5×10cm)	100张/包装
FFX050-FFX055	Western洗膜盒	1个/包装
P0006	Bradford蛋白浓度测定试剂盒	1000次
P0012	BCA蛋白浓度测定试剂盒	500次
P0012A	SDS-PAGE凝胶配制试剂盒	可制30-50块胶
P0012AC	SDS-PAGE凝胶快速配制试剂盒	可制30-50块胶
P0013	Western及IP细胞裂解液	100ml
P0013B-P0013D	RIPA裂解液(强、中、弱)	100ml
P0014A/P0014B	SDS-PAGE电泳液(Tris-Gly, Powder)	1L/10L
P0014C/P0014D	SDS-PAGE电泳液(Tris-Gly, 10X)	100ml/500ml
P0015/P0015L	SDS-PAGE蛋白上样缓冲液(5X)	2ml/15ml
P0015F	SDS-PAGE蛋白上样缓冲液(6X)	2ml
P0017F	BeyoBlue™考马斯亮蓝超快染色液	250ml
P0018A	BeyoECL Star (特超敏ECL化学发光试剂盒)	100ml/500ml

P0018F	BeyoECL Moon (极超敏ECL化学发光试剂盒)	100ml/500ml
P0018S/P0018M	BeyoECL Plus (超敏ECL化学发光试剂盒)	100ml/500ml
P0021A	Western转膜液	1L
P0021S	PVDF膜浸润活化液	250ml
P0022	丽春红染色液	120ml
P0023A	Western一抗稀释液	100ml/500ml
P0023B	Western封闭液	100ml/500ml
P0023C	Western洗涤液	250ml
P0023D	Western二抗稀释液	100ml/500ml
P0025	Western一抗二抗去除液	250ml
P0059	Recombinant 16-Tag Protein	200µl/1ml
P0066	预染蛋白质分子量标准(19-117kD)	200µl
P0068	彩色预染蛋白质分子量标准(10-180kD)	200µl
P0071	BeyoColor™彩色预染蛋白分子量标准(6.5-270kD)	200µl
P0075	BeyoColor™彩色预染蛋白分子量标准(10-170kD)	200µl
P0078	BeyoColor™彩色预染蛋白分子量标准(15-120kD)	200µl
P0095	免疫染色通透液(Saponin)	100ml/500ml
P0096	免疫染色通透液(Triton X-100)	100ml/500ml
P0097	免疫染色强力通透液	100ml/500ml
P0098	免疫染色固定液	100ml/500ml
P0099	4%多聚甲醛固定液	100ml/500ml
P0102	免疫染色封闭液	100ml
P0103	免疫染色一抗稀释液	100ml
P0106	免疫染色洗涤液	250ml
P0108	免疫荧光染色二抗稀释液	100ml
P0220-P0235	QuickBlock™封闭液	100ml
P0252	QuickBlock™ Western封闭液	100ml/500ml
P0256	QuickBlock™ Western一抗稀释液	100ml/500ml
P0258	QuickBlock™ Western二抗稀释液	100ml/500ml
P0260	QuickBlock™免疫染色封闭液	100ml
P0262	QuickBlock™免疫染色一抗稀释液	100ml
P0265	QuickBlock™免疫荧光染色二抗稀释液	100ml
P0267	QuickBlock™免疫组化染色二抗稀释液	100ml
P0280	InstantView™ SDS-PAGE蛋白染色及上样缓冲液(5X)	1ml
P0050-P0058	BeyoGel™ SDS-PAGE预制胶(Tris-Gly, 12孔)	10块/50块
P0448-P0472	BeyoGel™ Plus PAGE预制胶(Tris-Gly, 10孔/15孔)	10块/50块
P0501-P0528	BeyoGel™ Plus PAGE预制胶(Hepes, 10孔/15孔)	10块/50块
P0552	BeyoGel™ Plus SDS-PAGE Hepes电泳液(20X)	100ml/500ml
P0670-P0678	SDS-PAGE下层胶预混液	250ml/500ml
P0683	SDS-PAGE上层胶预混液	250ml/500ml
P0686-P0695	SDS-PAGE凝胶超快速配制试剂盒	可制30-50块胶
P1005-P1031	蛋白酶抑制剂混合物(50X/100X)	1ml/5ml
P1045-P1066	蛋白酶磷酸酶抑制剂混合物(50X)	1ml/2ml/5ml/10ml
P1081-P1097	磷酸酶抑制剂混合物(50X)	2ml/10ml
P1112/P1113	去乙酰化酶抑制剂混合物(100X)	1ml/5ml
R0121	AllProtect™动物组织核酸、蛋白稳定保存液	25ml/100ml

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