



碧云天生物技术/Beyotime Biotechnology  
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## S100A4 Rabbit Polyclonal Antibody (KO Validated)

产品编号	产品名称	包装
AF5291	S100A4 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, IF, IHC	H, M, R	11kDa	12kDa

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
1:500-1:2000	-	1:50-1:200	1:50-1:200	1:50-1:200	-	-	-

- 抗体详细信息如下:

About this Antibody	
Name	S100A4 Rabbit Polyclonal Antibody (KO Validated)
Category	Rabbit Polyclonal Antibody (pAb); Primary antibody
Isotype	IgG
Purification method	Affinity purification
Positive samples	HeLa, SKOV3
Cellular location	-
Customer validation	-
About the Immunogen	
Immunogen	Recombinant fusion protein of human S100A4 (NP_002952.1).
Sequence	MACPLEKALDVMVSTFHKYSGKEGDKFKLNKSELKELLTRELPSFLGKRTDEAAAFQKLMSNLDSNRDNEVDFQEYCVFLSCIAMMCNEFFEGFPDKQPRKK
Gene ID	6275
Swiss Prot	P26447
Synonyms	S100A4; 18A2; 42A; CAPL; FSP1; MTS1; P9KA; PEL98; protein S100-A4
Category	MAPK/Erk in GPCR Signaling
Background	Despite their relatively small size (8-12 kDa) and uncomplicated architecture, S100 proteins regulate a variety of cellular processes such as cell growth and motility, cell cycle progression, transcription, and differentiation. To date, 25 members have been identified, including S100A1-S100A18, trichohyalin, filaggrin, repetin, S100P, and S100Z, making it the largest group in the EF-hand, calcium-binding protein family. Interestingly, 14 S100 genes are clustered on human chromosome 1q21, a region of genomic instability. Research studies have demonstrated that significant correlation exists between aberrant S100 protein expression and cancer progression. S100 proteins primarily mediate immune responses in various tissue types but are also involved in neuronal development. Each S100 monomer bears two EF-hand motifs and can bind up to two molecules of calcium (or other divalent cation in some instances). Structural evidence shows that S100 proteins

form antiparallel homo- or heterodimers that coordinate binding partner proximity in a calcium-dependent (and sometimes calcium-independent) manner. Although structurally and functionally similar, individual members show restricted tissue distribution, are localized in specific cellular compartments, and display unique protein binding partners, which suggests that each plays a specific role in various signaling pathways. In addition to an intracellular role, some S100 proteins have been shown to act as receptors for extracellular ligands or are secreted and exhibit cytokine-like activities.

Research studies have shown that S100A4 is overexpressed in highly metastatic cancers, which makes it useful as a marker of tumor progression and may serve as a prognostic factor in several cancer types. S100A4 exerts its function via direct interaction with a number of proteins including P53, P63, nonmuscle myosin IIA,  $\alpha\beta4$  integrin, and liprin b1. S100A4 is present in the nucleus, cytoplasm and extracellular space. Intracellular and extracellular S100A4 both promote cell migration via interaction with different proteins. Researchers have recently discovered that S100A4 also functions as a neuroprotectant in the peripheral nervous system.

**包装清单:**

产品编号	产品名称	包装
AF5291	S100A4 Rabbit Polyclonal Antibody (KO Validated)	50 $\mu$ l
AZ050	Western一抗稀释液	50ml
—	说明书	1份

**保存条件:**

S100A4 Rabbit Polyclonal Antibody (KO Validated) -20 $^{\circ}$ C保存, Western一抗稀释液-20 $^{\circ}$ C或4 $^{\circ}$ C保存, 一年有效。Western一抗稀释液优先推荐4 $^{\circ}$ C保存, 长期不使用可以考虑-20 $^{\circ}$ 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 $^{\circ}$ 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:**

- a. 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。
- b. 把经过封闭的蛋白膜与稀释好的一抗4 $^{\circ}$ 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。
- c. 回收稀释的一抗, 4 $^{\circ}$ C保存以备下次继续使用。
- d. 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:**

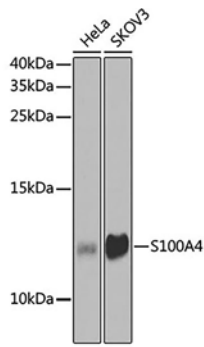


Fig. 1. Western blot analysis of extracts of various cell lines, using S100A4 antibody at 1:1000 dilution. Secondary antibody: HRP-labeled Goat Anti-Rabbit IgG(H+L) (A0208) at 1:1000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: QuickBlock™ Blocking Buffer (P0231). Detection: BeyoECL Star (P0018A). Exposure time:1s.

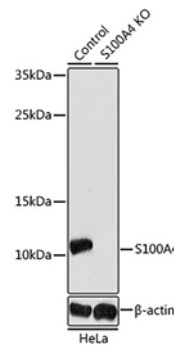


Fig. 2. Western blot analysis of extracts from normal (control) and S100A4 knockout (KO) HeLa cells, using S100A4 antibody at 1:1000 dilution. Secondary antibody: HRP-labeled Goat Anti-Rabbit IgG(H+L) (A0208) at 1:1000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: QuickBlock™ Blocking Buffer (P0231). Detection: BeyoECL Star (P0018A) . Exposure time:1s.

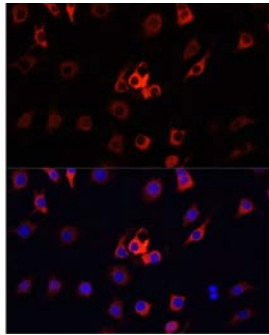


Fig. 3. Immunohistochemistry of paraffin-embedded rat brain using S100A4 antibody at dilution of 1:100 (40x lens).

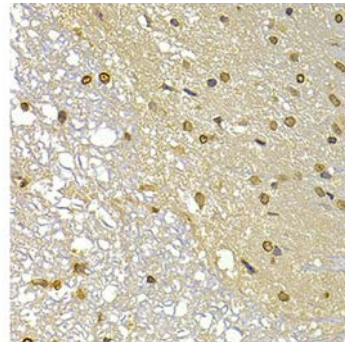


Fig. 4. Immunofluorescence analysis of RAW264.7 cells using S100A4 antibody at dilution of 1:100. Blue: DAPI for nuclear staining.

#### 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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