



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

## GSS Rabbit Polyclonal Antibody (KO Validated)

产品编号	产品名称	包装
AF5176	GSS 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	H, M, R	40/52kDa	54kDa

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	-	-	-	-	-	-	-

- 抗体详细信息如下:

About this Antibody	
Name	GSS Rabbit Polyclonal Antibody (KO Validated)
Category	Rabbit Polyclonal Antibody (pAb); Primary antibody
Isotype	IgG
Purification method	Affinity purification
Positive samples	DU145, K-562, 293T, Mouse kidney, Mouse spleen, Mouse brain, Rat kidney
Cellular location	-
Customer validation	-
About the Immunogen	
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 373-474 of human GSS (NP_000169.1).
Sequence	NLYGEEMVQALKQLKDSEERASYILMEKIEPEPFENCLLRPGSPARVVQCISELGIFGVYVRQEKTLVMNKHVGHLLRKAIEHADGGVAAGVAVLDNPPVPV
Gene ID	2937
Swiss Prot	P48637
Synonyms	GSS; GSHS; HEL-S-64p; HEL-S-88n; glutathione synthetase
Category	Glutamine Metabolism
Background	GSS (Glutathione synthetase) is a 474 amino acid protein encoded by the gene located at human chromosome 20q11.2. GSS consists of three loops projecting from an antiparallel $\beta$ -sheet, a parallel $\beta$ -sheet and a lid of anti-parallel sheets, which provide access to the ATP-binding site. Although Southern blot and gene analysis suggest that GSS may be the only member of a unique family, the crystal structure indicates that GSS belongs to the ATP-GRASP superfamily. GSS is expressed in hemocytes and nucleated cells, including the brain. GSS occurs as a homodimer. There are two steps in the production of Glutathione, beginning with $\gamma$ -GCS and ending with GSS. In an ATP-dependent reaction, GSS produces Glutathione from $\gamma$ -glutamylcysteine and glycine precursors. Partial hepatectomy, diethyl maleate, buthionine sulfoximine, tert-butylhydroquinone and thioacetamide increase the ex-pression of GSS, which causes an increase in Glutathione levels. An inherited autosomal recessive disorder,

5-oxoprolinuria (pyroglutamic aciduria), is caused by GSS deficiencies, which leads to central nervous system damage, hemolytic anemia, metabolic acidosis and urinary excretion of 5-oxoprolinone. A missense mutation in the gene encoding GSS leads to a GSS deficiency restricted to erythrocytes, which causes only hemolytic anemia.

### 包装清单:

产品编号	产品名称	包装
AF5176	GSS Rabbit Polyclonal Antibody (KO Validated)	50µl
AZ050	Western一抗稀释液	50ml
—	说明书	1份

### 保存条件:

GSS 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:

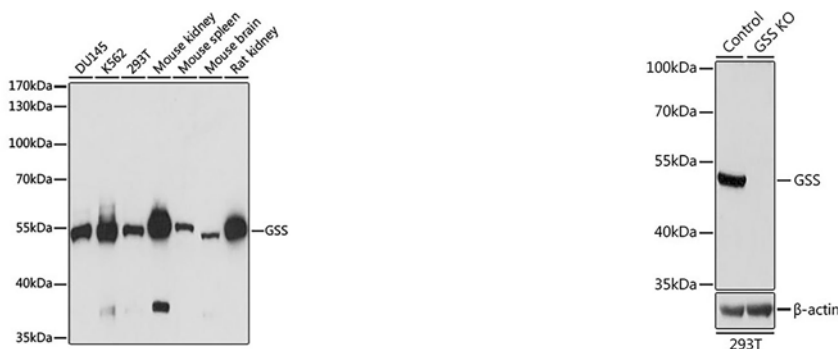


Fig. 1. Western blot analysis of extracts of various cell lines, using GSS antibody at 1:3000 dilution.

Secondary antibody: HRP-labeled Goat Anti-Rabbit IgG(H+L) (A0208) at 1:10000 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 GSS knockout (KO) 293T cells, using GSS antibody at 1:1000 dilution.

Secondary antibody: HRP-labeled Goat Anti-Rabbit IgG(H+L) (A0208) at 1:10000 dilution.

Lysates/proteins:25µg per lane.

Blocking buffer: QuickBlock™ Blocking Buffer (P0231)

Detection: BeyoECL Star (P0018A).

Exposure time:1s.

## 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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