



碧云天生物技术/Beyotime Biotechnology  
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 网址: http://www.beyotime.com

## GRP78 Rabbit Polyclonal Antibody

产品编号	产品名称	包装
AF0171	GRP78 Rabbit Polyclonal Antibody	50μl

### 产品简介:

来源	用途	交叉反应性	分子量
Rabbit	WB, FC, IHC, ICC, IF	H, M, R	72KDa

WB, Western blot; IP, Immunoprecipitation; IF, Immunofluorescence; IHC, Immunohistochemistry; ICC, Immunocytochemistry; FC, Flow Cytometry; ELISA, Enzyme-linked Immunosorbent Assay; ChIP, Chromatin Immunoprecipitation Assay.

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	ELISA	ChIP
1:1000	-	1:100	1:100	1:100	1:50-1:100	-	-

- 抗体详细信息如下:

About this Antibody	
Name	GRP78 Rabbit Polyclonal Antibody
Category	Polyclonal antibody(pAb); Primary antibody
Isotype	IgG
Purification	Peptide affinity purified
About the Immunogen	
Immunogen	This antibody is produced by immunizing rabbits with a synthetic peptide (KLH-coupled) corresponding to GRP78.
Gene ID	3309
SwissProt	P11021
Synonyms	BIP; GLUCOSE-REGULATED PROTEIN 78-KD; HEAT-SHOCK 70-KD PROTEIN 5; IMMUNOGLOBULIN HEAVY CHAIN-BINDING PROTEIN; heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa)
Category	Protein Folding and Trafficking
Background	Binding immunoglobulin protein (BiP) also known as 78 kDa glucose-regulated protein (GRP-78) or heat shock 70 kDa protein 5 (HSPA5) is a protein that in humans is encoded by the HSPA5 gene. BiP is a HSP70 molecular chaperone located in the lumen of the endoplasmic reticulum (ER) that binds newly synthesized proteins as they are translocated into the ER, and maintains them in a state competent for subsequent folding and oligomerization. BiP is also an essential component of the translocation machinery, as well as playing a role in retrograde transport across the ER membrane of aberrant proteins destined for degradation by the proteasome. Like many stress and heat shock proteins, BiP/GRP78 has potent immunological activity when released from the internal environment of the cell into the extracellular space. Specifically, it feeds anti-inflammatory and pro-resolatory signals into immune networks, thus helping to resolve inflammation.

### 包装清单:

产品编号	产品名称	包装
AF0171	GRP78 Rabbit Polyclonal Antibody	50μl
AZ050	Western一抗稀释液	50ml
-	说明书	1份

## 保存条件:

GRP78 Rabbit Polyclonal Antibody -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/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/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:

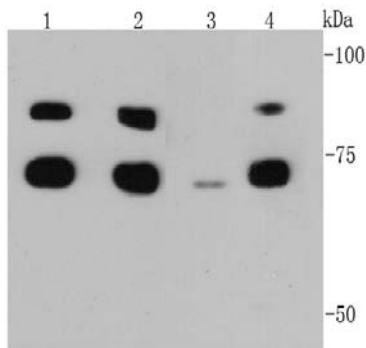


Fig. 1. Western blot analysis of GRP78 on different cell lysates using anti-GRP78 antibody at 1/2000 dilution. Positive control: Lane 1: Hela Lane 2: HepG2 Lane 3: PC12 Lane 4: Mouse liver.

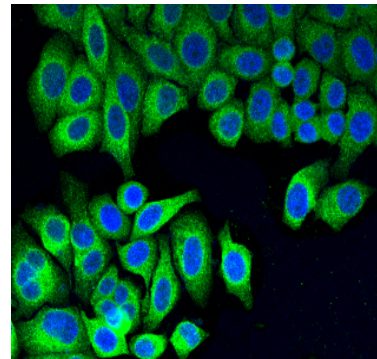


Fig. 2. Immunofluorescent staining GRP78 in HeLa cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X-100/PBS and counterstained with DAPI in order to highlight the nucleus (blue).

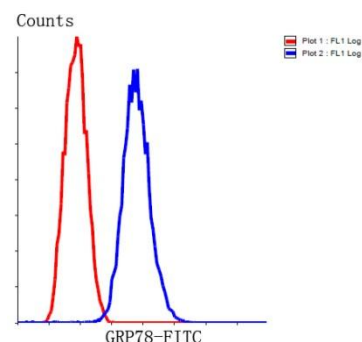
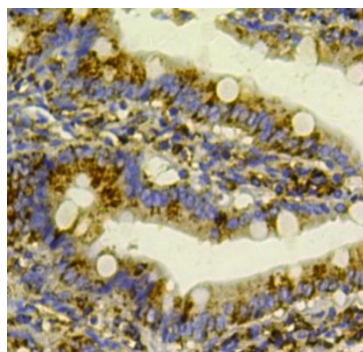


Fig. 3. Immunohistochemical analysis of paraffin-embedded rat small intestine tissue using anti-GRP78 antibody. Counter stained with hematoxylin.

Fig. 4. Flow cytometric analysis of HepG2 cells with GRP78 antibody at 1/100 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red).Goat anti rabbit IgG (FITC) was used as the secondary antibody.

相关产品:

产品编号	产品名称	包装
P0006	Bradford蛋白浓度测定试剂盒	1000次
P0010	BCA蛋白浓度测定试剂盒(增强型)	500次
P0012	BCA蛋白浓度测定试剂盒	500次
P0012A	SDS-PAGE凝胶配制试剂盒	1盒
P0012AC	SDS-PAGE凝胶快速配制试剂盒	1盒
P0013	Western及IP细胞裂解液	100ml
P0013B	RIPA裂解液(强)	100ml
P0014B	SDS-PAGE电泳液	10×1L
P0015	SDS-PAGE蛋白上样缓冲液(5X)	2ml
P0018	BeyoECL Plus(超敏ECL化学发光试剂盒)	共100ml
P0018A	BeyoECL Star(特超敏ECL化学发光试剂盒)	共100ml
P0020	显影定影试剂盒	各1升
P0021B	Western转膜液	10×1L
P0023A	Western一抗稀释液	100ml
P0023B	Western封闭液	100ml
P0023C6	Western洗涤液(10X)	10×100ml
P0023D	Western二抗稀释液	100ml
P0025	Western一抗二抗去除液	250ml
P0252	QuickBlock™ Western封闭液	100ml
P0256	QuickBlock™ Western一抗稀释液	100ml
P0258	QuickBlock™ Western二抗稀释液	100ml
P0066	预染蛋白质分子量标准	200μl
P0068	彩色预染蛋白质分子量标准	200μl
P0071	BeyoColor™彩色预染蛋白质分子量标准	200μl
P0098	免疫染色固定液	100ml
P0102	免疫染色封闭液	100ml
P0103	免疫染色一抗稀释液	100ml
P0106L	免疫染色洗涤液(10X)	10×100ml
P0108	免疫荧光染色二抗稀释液	100ml
P0110	免疫染色(非荧光)二抗稀释液	100ml
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
P0126	抗荧光淬灭封片液	5ml
FFP24	PVDF膜(进口分装, 6.6×8.5cm, 0.2μm)	20张/包装
FFP32	PVDF膜(进口原装, 6.6×8.5cm, 0.45μm)	20张/包装
FFP51	转印滤纸(7.5×10cm)	100片/包装
FF057	X-OMAT BT胶片(原柯达, 5×7英寸)	100张/盒
FFC58	压片暗盒(5×7英寸)	1个

使用本产品的文献:

1. Zou X, Qu Z, Fang Y, Shi X, Ji Y. . Endoplasmic reticulum stress mediates sulforaphane-induced apoptosis of HepG2 humanhepatocellular carcinoma cells. Mol Med Rep. 2017 Jan;15(1):331-338.
2. Zou D, Xu J, Duan X, Xu X, Li P, Cheng L, Zheng L, Li X, Zhang Y, Wang X, Wu X, Shen Y, Yao X, Wei J, Yao L, Li L, Song B, Ma J, Liu X, Wu Z, Zhang H,

- Cao H . Porcine epidemic diarrhea virus ORF3 protein causes endoplasmic reticulum stress to facilitate autophagy. *Vet Microbiol.* 2019 Aug 235:209-219.
3. Xiaoxiang Zheng, Bingyu Ren, Xiaoming Li, Huanhuan Yan, Qingguo Xie, Hongmei Liu, Jun Zhou, Jing Tian, Kaixun Huang . Selenoprotein F knockout leads to glucose and lipid metabolism disorders in mice *J Biol Inorg Chem.* 2020 Oct;25(7):1009-1022.
  4. Da-Yong Wang, Ming-Yan Hong, Jian Pei, Yun-He Gao, Yu Zheng, Xiang Xu . ER stress mediated-autophagy contributes to neurological dysfunction in traumatic brain injury via the ATF6 UPR signaling pathway *Mol Med Rep.* 2021 Apr;23(4):247.
  5. Xuan Li, Sen Zhu, Zheng Li, Yu-Qi Meng, Su-Jie Huang, Qi-Yao Yu, Bin Li . Melittin induces ferroptosis and ER stress-CHOP-mediated apoptosis in A549 cells *Free Radic Res.* 2022 May-Jun;56(5-6):398-410.
  6. Liang Zheng, Hongxian Liu, Zhipiao Tian, Matthew Kay, Hongyu Wang, Xianhe Wang, Hao Han, Wenlong Xia, Jiankang Zhang, Wenling Wang, Zhenqiu Gao, Zhijun Wu, Hongwei Cao, Rongqing Geng, Hua Zhang . Porcine epidemic diarrhea virus E protein inhibits type I interferon production through endoplasmic reticulum stress response (ERS)-mediated suppression of antiviral proteins translation *Res Vet Sci.* 2022 Dec 20:152:236-244.

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