

QuickBlock™封闭液(PBS)

产品编号	产品名称	包装
P0220	QuickBlock™封闭液(PBS)	100ml

产品简介:

- 碧云天生产的QuickBlock™封闭液(QuickBlock™ Blocking Buffer)是最新一代的快速高效封闭液, 总体效果显著优于传统的基于BSA(牛血清白蛋白)、脱脂奶粉、酪蛋白(Casein)等的封闭液及国外同类产品, 可以用于Western blot (WB)、Immunofluorescence (IF)、Immunohistochemistry (IHC)、Immunocytochemistry (IC)等实验中的封闭、一抗或二抗的稀释。本产品配制在PBS中, 不含去垢剂。
- QuickBlock™封闭液**快速高效**。封闭时间通常仅需5-15分钟, 并且和BSA、脱脂奶粉、酪蛋白等传统封闭液以及国外同类的快速封闭液相比, 显示出更强的信噪比(参考图1)。
- QuickBlock™封闭液封闭后**背景极低**。本封闭液不含血清和白蛋白, 确保极高的信噪比。
- QuickBlock™封闭液**兼容性好**, 兼容辣根过氧化物酶(Horseradish peroxidase, HRP)、碱性磷酸酶(Alkaline phosphatase, AP)和生物素标记的二抗。本产品中添加了不影响HRP和AP活性的防腐剂, 不会干扰HRP或AP标记二抗的检测。同时本产品不含生物素, 不会干扰基于生物素的检测。
- QuickBlock™封闭液**使用灵活**。本产品配制在PBS中, 可以直接用于相关实验, 但也可以根据实验需要自行添加Tween-20或Triton X-100至终浓度为0.05%-0.1%后用于封闭、一抗或二抗的稀释。
- 本产品与BSA及国外同类产品的封闭效果对比参见图1。在相同样品和实验条件下, 仅封闭液及封闭时间存在如下图所示的差异时, 碧云天的QuickBlock™封闭液封闭后的整体背景明显低于BSA封闭后的背景, 而且目的条带亮度明显高于国外同类产品。

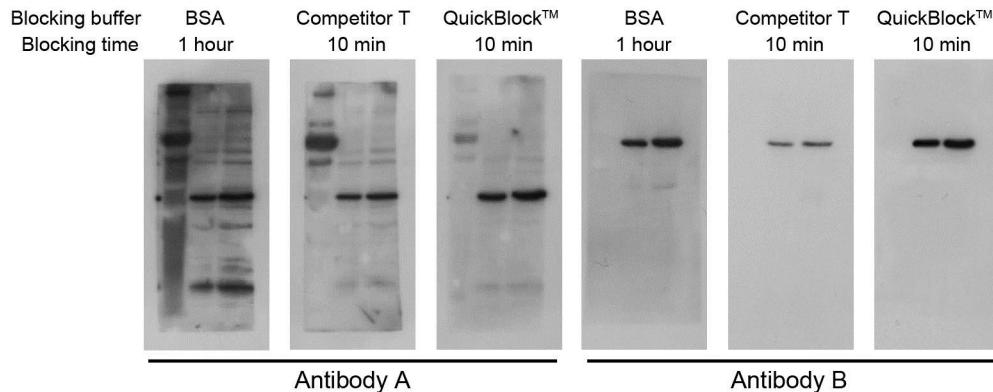


图1. QuickBlock™封闭液与BSA及国外同类产品的封闭效果比较。每组实验从左到右依次为: 5 μ l蛋白Marker, 2.5 μ g蛋白量的HeLa细胞裂解液, 5 μ g蛋白量的HeLa细胞裂解液。请注意对于Antibody A, QuickBlock™封闭液比BSA和国外同类产品具有更低的背景, 并且和国外同类产品相比信号明显更强。对于Antibody B, QuickBlock™封闭液比BSA具有更低的背景, 和国外同类产品相比信号明显更强。实际实验结果会因样品、抗体、实验条件等的不同而存在差异, 图中数据仅供参考。

- 关于不同封闭液的选择, 请参考碧云天的相关网页: <http://www.beyotime.com/support/blocking-buffer.htm>。
- 按照每张膜封闭需要5-10ml QuickBlock™封闭液计算, 一个包装的本产品可以封闭10-20张膜。

包装清单:

产品编号	产品名称	包装
P0220	QuickBlock™封闭液(PBS)	100ml
—	说明书	1份

保存条件:

4°C保存, 一年有效。长期不使用可以-20°C保存。

注意事项:

- 本产品推荐仅使用一次, 重复使用可能会导致封闭效果下降。但对于一些信噪比很高的一抗, 例如一些内参抗体, 本封闭液可以重复使用2-3次。回收的封闭液请勿与未使用过的封闭液混合。
- 通常本产品用于PVDF膜及NC膜时的封闭时间为5-15分钟。对于一些背景非常高的抗体, 可以尝试将封闭时间延长为30-60

分钟。此外，如有特殊需要，也完全可以4°C封闭过夜。

- 由于没有任何一种封闭液是适用于所有实验体系的，因此对于一些特殊的实验，可能需要根据具体情况考虑使用其它更合适的封闭液。
- 取放PVDF膜和NC膜应使用平头镊子，并轻轻夹取其边角，操作过程须避免膜表面产生划痕、折痕或压痕等痕迹。
- PVDF膜一经浸润和活化，需一直保持湿润，根据Western进行到的具体步骤可放置于western转膜液或洗涤液等适当溶液中，否则可能会产生难以封闭的异常背景。
- 在背景较高的情况下，为进一步提高信噪比，本产品中可以自行添加Tween-20或Triton X-100至终浓度为0.05%-0.1%。
- 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：

1. Western Blot中膜的封闭

- 完成转膜后，用Western洗涤液洗涤蛋白膜1-2分钟。
- 根据膜的大小，在平皿或者其它适当容器中倒入一定体积的QuickBlock™封闭液(PBS)(可以根据实验需要自行添加Tween-20或Triton X-100至终浓度为0.05%-0.1%)，确保封闭液后续能充分覆盖膜即可。对于常规的western，一张约6.6×8.5cm的膜推荐使用约10ml左右的封闭液。
- 用平头镊夹住膜的一角，将膜放置在QuickBlock™封闭液(PBS)中，使封闭液完全浸没膜，置于水平摇床上封闭约10分钟(通常5-15分钟均可；经多种抗体的测试封闭10分钟的效果很多时候会显著优于常规的BSA封闭1小时的效果)。
- 封闭后的膜即可用于一抗孵育等后续实验。详细的Western操作可以参考如下的相关网页：
<http://www.beyotime.com/support/western.htm>。

2. IF、IHC等实验的封闭

按照相关实验步骤，直接用QuickBlock™封闭液(PBS)替换传统封闭液即可(可以根据实验需要自行添加Tween-20或Triton X-100至终浓度为0.05%-0.1%)，一般封闭时间可以缩短至10分钟(在碧云天测试过的多个一抗中，封闭10-20分钟的效果无明显差别，封闭10分钟的效果等同于或显著优于常规的封闭方法)。

相关产品：

产品编号	产品名称	包装
P0220	Quickblock™封闭液(PBS)	100ml
P0222	Quickblock™封闭液(PBSTw)	100ml
P0226	Quickblock™封闭液(PBSTx)	100ml
P0228	Quickblock™封闭液(TBS)	100ml
P0231	Quickblock™封闭液(TBSTw)	100ml
P0233	Quickblock™封闭液(TBSTx)	100ml
P0235	Quickblock™封闭液(10X)	100ml
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
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

使用本产品的文献：

- Cheng L, Zhang D, Chen B. Tumor necrosis factor α -induced protein-3 protects zinc transporter 8 against proinflammatory cytokine-induced downregulation. *Exp Ther Med*. 2016 Sep;12(3):1509-1514.
- Peng W, Liu YJ, Hu MB, Yan D, Gao YX, Wu CJ. Using the "target constituent removal combined with bioactivity assay" strategy to investigate the optimum arecoline content in charred areca nut. *Sci Rep*. 2017 Jan 5;7:40278.
- Long J, Xiao Y, Liu L, Cao Y. The adverse vascular effects of multi-walled carbon nanotubes (MWCNTs) to human vein endothelial cells (HUVECs) in vitro: role of length of MWCNTs. *J Nanobiotechnology*. 2017 Nov 10;15(1):80.
- Chen J, Mao S, Li H, Zheng M, Yi L, Lin JM, Lin ZX. The pathological structure of the perivascular niche in different microvascular patterns of glioblastoma. *PLoS One*. 2017 Aug 3;12(8):e0182183.
- Ding Y, Zheng Y, Liu T, Chen T, Wang C, Sun Q, Hua M, Hua T. Changes in GABAergic markers accompany degradation of neuronal function in the primary visual cortex of senescent rats. *Sci Rep*. 2017 Nov 2;7(1):14897.
- Chen GL, Ye T, Chen HL, Zhao ZY, Tang WQ, Wang LS, Xia JL. Xanthine dehydrogenase downregulation promotes TGF β signaling and cancer stem cell-related gene expression in hepatocellular carcinoma. *Oncogenesis*. 2017 Sep 25;6(9):e382.
- Zhao Z, Zhao Y, Zhuang XY, Lo WC, Baker MAB, Lo CJ, Bai F. Frequent pauses in Escherichia coli flagella elongation revealed by single cell real-time fluorescence imaging. *Nature Communications*. 2018 May 14;9(1):1885.
- Ding M, Ning J, Feng N, Li Z, Liu Z, Wang Y, Wang Y, Li X, Huo C, Jia X, Xu R, Fu F, Wang X, Pei J. Dynamin-related protein 1-mediated mitochondrial fission contributes to post-traumatic cardiac dysfunction in rats and the protective effect of melatonin. *J Pineal Res*. 2018 Jan;64(1). doi: 10.1111/jpi.12447.
- Yang D, Sun C, Zhang J, Lin S, Zhao L, Wang L, Lin R, Lv J, Xin S. Proliferation of vascular smooth muscle cells under inflammation is regulated by NF- κ B

- p65/microRNA-17/RB pathway activation. *Int J Mol Med*. 2018 Jan;41(1):43-50.
10. Hu H, Zhao P, Liu J, Ke Q, Zhang C, Guo Y, Ding H. Lanthanum phosphate/chitosan scaffolds enhance cytocompatibility and osteogenic efficiency via the Wnt/ β -catenin pathway. *J Nanobiotechnology*. 2018 Nov 29;16(1):98.
 11. Ding Y, Chen T, Wang Q, Yuan Y, Hua T. Axon initial segment plasticity accompanies enhanced excitation of visual cortical neurons in aged rats. *Neuroreport*. 2018 Dec 12;29(18):1537-1543.
 12. Liu L, Zhang Y, Chang X, Li R, Wu C, Tang L, Zhou Z. Fluorochloridone perturbs blood-testis barrier/Sertoli cell barrier function through Arp3-mediated F-actin disruption. *Toxicol Lett*. 2018 Oct 1;295:277-287.
 13. Yang HW, Liu XY, Shen ZF, Yao W, Gong XB, Huang HX, Ding GH. An investigation of the distribution and location of mast cells affected by the stiffness of substrates as a mechanical niche. *Int J Biol Sci*. 2018 Jun 22;14(9):1142-1152.
 14. Wang X, Zou P, He Y, Meng K, Quan F, Zhang Y. Effect of luteinizing hormone on goat theca cell apoptosis and steroidogenesis through activation of the PI3K/AKT pathway. *Anim Reprod Sci*. 2018 Mar;190:108-118.
 15. Fu C, Yin D, Nie H, Sun D. Notoginsenoside R1 Protects HUVEC Against Oxidized Low Density Lipoprotein (Ox-LDL)-Induced Atherogenic Response via Down-Regulating miR-132. *Cell Physiol Biochem*. 2018;51(4):1739-1750.
 16. Liu X, Wang Z, Zhang G, Zhu Q, Zeng H, Wang T, Gao F, Qi Z, Zhang J, Wang R. Overexpression of asparaginyl endopeptidase is significant for esophageal carcinoma metastasis and predicts poor patient prognosis. *Oncol Lett*. 2018 Jan;15(1):1229-1235.
 17. Jin X, Yu Y, Zou Q, Wang M, Cui Y, Xie J, Wang Z. MicroRNA-105 promotes epithelial-mesenchymal transition of nonsmall lung cancer cells through upregulating Mcl-1. *J Cell Biochem*. 2018 Oct 14. doi: 10.1002/jcb.27873.
 18. Lin L, Wang L, Liu Y, Xu C, Tu Y, Zhou J. Non-thermal plasma inhibits tumor growth and proliferation and enhances the sensitivity to radiation in vitro and in vivo. *Oncology Reports*. *Oncol Rep*. 2018 Dec;40(6):3405-3415.
 19. Sun H, Shao W, Liu H, Jiang Z. Exposure to 2,4-dichlorophenoxyacetic acid induced PPAR β -dependent disruption of glucose metabolism in HepG2 cells. *Environ Sci Pollut Res Int*. 2018 Jun;25(17):17050-17057.
 20. Chen G, Li Q, Luo Y, Liu T, Zhou S, Pan E, Peng L. Effect of Notoginsenoside R1 on autologous adipose graft in rats. *Mol Med Rep*. 2018 Apr;17(4):5928-5933.
 21. Guo D, Hu X, Zhang H, Lu C, Cui G, Luo X. Orientin and neuropathic pain in rats with spinal nerve ligation. *Int Immunopharmacol*. 2018 May;58:72-79.
 22. Shi GH, Zhou L. Emodin suppresses angiogenesis and metastasis in anaplastic thyroid cancer by affecting TRAF6-mediated pathways in vivo and in vitro. *Mol Med Rep*. 2018 Dec;18(6):5191-5197.
 23. Tengfei Liu, Xiaoyan Liu, Hui Xiong, Cheng Xu, Jianxu Yao, Xiumei Zhu, Jianping Zhou and Jing Yao. Mechanisms of TPGS and its derivatives inhibiting P-glycoprotein efflux pump and application for reversing multidrug resistance in hepatocellular carcinoma. *Polym. Chem.*, 2018,9, 1827-1839
 24. Liang X, Li B, Huang Q, Liu D, Ma H. Klotho prevents DEX-induced apoptosis in MC3T3-E1 osteoblasts through the NF- κ B signaling pathway. *Biochem Biophys Res Commun*. 2018 Dec 9;507(1-4):355-361.
 25. Zhang W, Chen W, Li Z, Ma L, Yu J, Wang H, Liu Z, Xu B. Identification and Characterization of Three New Cytochrome P450 Genes and the Use of RNA Interference to Evaluate Their Roles in Antioxidant Defense in *Apis cerana cerana* Fabricius. *Front Physiol*. 2018 Nov 15;9:1608.
 26. Zhang L, Liu J, Zhou F, Wang W, Chen N. PGC-1 α ameliorates kidney fibrosis in mice with diabetic kidney disease through an antioxidative mechanism. *Mol Med Rep*. 2018 Mar;17(3):4490-4498.
 27. Liu L, Chang X, Zhang Y, Wu C, Li R, Tang L, Zhou Z. Fluorochloridone induces primary cultured Sertoli cells apoptosis: Involvement of ROS and intracellular calcium ions-mediated ERK1/2 activation. *Toxicol In Vitro*. 2018 Mar;47:228-237.
 28. Wu JX, Tong L, Hu L, Xia CM, Li M, Chen QH, Chen FX, Du DS. Upregulation of Nav1.6 expression in the rostral ventrolateral medulla of stress-induced hypertensive rats. *Hypertens Res*. 2018 Dec;41(12):1013-1022.
 29. Xu H, Chen J, Si X, Chen M, Pei F, Qiu C, Wu J, Guan X. PKR inhibition mediates endotoxin tolerance in macrophages through inactivation of PI3K/AKT signaling. *Mol Med Rep*. 2018 Jun;17(6):8548-8556.
 30. Wu K, Mu XY, Jiang JT, Tan MY, Wang RJ, Zhou WJ, Wang X, He YY, Li MQ, Liu ZH. miRNA-26a-5p and miR-26b-5p inhibit the proliferation of bladder cancer cells by regulating PDCD10. *Oncol Rep*. 2018 Dec;40(6):3523-3532.
 31. Song Z, Yang F, Du H, Li X, Liu J, Dong M, Xu X. Role of artemin in non-small cell lung cancer. *Thorac Cancer*. 2018 May;9(5):555-562.
 32. Gao S, Wang Y, Li D, Guo Y, Zhu M, Xu S, Mao J, Fan G. TanshinoneIIA Alleviates Inflammatory Response and Directs Macrophage Polarization in Lipopolysaccharide-Stimulated RAW264.7 Cells. *Inflammation*. 2018 Sep 14. doi: 10.1007/s10753-018-0891-7.
 33. Wang Z, Zhou W, Dong H, Ma X, He Z. Dexmedetomidine pretreatment inhibits cerebral ischemia/reperfusion-induced neuroinflammation via activation of AMPK. *Mol Med Rep*. 2018 Oct;18(4):3957-3964.
 34. Li XH, Wang HP, Tan J, Wu YD, Yang M, Mao CZ, Gao SF, Li H, Chen H, Cai WB. Loss of pigment epithelium-derived factor leads to ovarian oxidative damage accompanied by diminished ovarian reserve in mice. *Life Sci*. 2019 Jan 1;216:129-139.
 35. Pei-PeiZhao, Hao-RanHu, Jia-YuLiu, Qin-FeiKe, Xiao-YuanPeng, HaoDing, Ya-PingGuo. Gadolinium phosphate/chitosan scaffolds promote new bone regeneration via Smad/Runx2 pathway. *Chemical Engineering Journal*. 2019 March 1;359: 1120-1129.

Version 2018.12.21