

[1]杨亭,倪振洪,龚薇,等.盐酸青藤碱诱导EA.hy926细胞自噬及其在抗炎中的作用[J].第三军医大学学报,2013,35(11):1084-1087.

Yang Ting,Ni Zhenhong,Gong Wei,et al.Anti-inflammation activity of sinomenine-induced autophagy in EA.hy926 cells [J].J Third Mil Med Univ,2013,35(11):1084-1087.

[点击复制](#)

盐酸青藤碱诱导EA.hy926细胞自噬及其在抗炎中的作用

《第三军医大学学报》 [ISSN:1000-5404/CN:51-1095/R] 卷: 35 期数: 2013年第11期 页码: 1084-1087 栏目: 论著 出版日期: 2013-06-15

Title: Anti-inflammation activity of sinomenine-induced autophagy in EA.hy926 cells

作者: [杨亭](#); [倪振洪](#); [龚薇](#); [何凤田](#)
第三军医大学基础医学部生物化学与分子生物学教研室

Author(s): [Yang Ting](#); [Ni Zhenhong](#); [Gong Wei](#); [He Fengtian](#)
Department of Biochemistry and Molecular Biology, College of Basic Medical Sciences, Third Military Medical University, Chongqing, 400038, China

关键词: [盐酸青藤碱](#); [自噬](#); [HMGB1](#); [ERK](#); [抗炎](#)

Keywords: [sinomenine](#); [autophagy](#); [HMGB1](#); [ERK](#); [anti-inflammation activity](#)

分类号: R282.71;R285.5;R364.5

文献标志码: A

摘要: 目的 探讨中药单体提取物盐酸青藤碱诱导人内皮细胞EA.hy926自噬的机制及其在抗炎中发挥的作用。 方法 Western blot检测分别以终浓度为50、100 μg/mL的盐酸青藤碱处理12 h后的EA.hy926细胞中自噬相关蛋白LC3 II、ERK2、磷酸化ERK2及炎症细胞因子HMGB1表达变化情况;荧光显微镜观察吖啶橙染色的经盐酸青藤碱诱导后EA.hy926细胞酸性小体变化情况。 结果 经终浓度为50、100 μg/mL的盐酸青藤碱处理EA.hy926细胞后,与对照组比较,100 μg/mL的盐酸青藤碱可使自噬相关蛋白LC3 II表达(0.67±0.05)及ERK2的磷酸化水平(1.08±0.05)上调(P<0.05),ERK抑制剂U0126可使LC3 II表达下调(P<0.05)及EA.hy926细胞中酸性小体减少;盐酸青藤碱可抑制EA.hy926中LPS诱导的HMGB1表达,自噬抑制剂氯喹可逆转该细胞中盐酸青藤碱对LPS诱导HMGB1表达的抑制作用(P<0.05)。 结论 盐酸青藤碱可通过ERK通路诱导EA.hy926细胞自噬,该自噬过程是盐酸青藤碱下调炎症细胞因子HMGB1进而发挥抗炎活性的机制之一。

导航/NAVIGATE

[本期目录/Table of Contents](#)

[下一篇/Next Article](#)

[上一篇/Previous Article](#)

工具/TOOLS

[引用本文的文章/References](#)

[下载 PDF/Download PDF\(591KB\)](#)

[立即打印本文/Print Now](#)

[查看/发表评论/Comments](#)

[导出](#)

统计/STATISTICS

[摘要浏览/Viewed](#) 303

[全文下载/Downloads](#) 111

[评论/Comments](#)

[RSS](#) [XML](#)

Abstract: **Objective** To investigate the underlying mechanism of sinomenine, a traditional Chinese herb extract monomer, in inducing autophagy and its anti-inflammation activity in EA.hy926 cells. **Methods** Western blotting was taken to detect the expression of autophagic markers LC3 II, ERK2, phosphorylation ERK2 and inflammatory cytokine HMGB1 in the EA.hy926 cells after the treatment of sinomenine at 50 or 100 µg/mL for 12 h. Acridine orange staining was used to observe the formation of acidic vesicular organelles in the cells by fluorescence microscopy. **Results** Western blotting revealed that the expression of LC3 II (0.67 ± 0.05) and phosphorylation ERK2 (1.08 ± 0.05) were remarkably increased after the treatment of sinomenine at 100 µg/mL ($P < 0.05$). Autophagic vesicles were induced by sinomenine, while both LC3 II and autophagic vesicles were partially decreased by ERK-specific inhibitor U0126 ($P < 0.05$). LPS-induced HMGB1 expression could be reduced by sinomenine, which was partially reversed by autophagy inhibitor CQ ($P < 0.05$). **Conclusion** It may be one of the mechanisms of anti-inflammation activity of sinomenine that can reduce HMGB1 by promoting autophagy through the ERK pathway in EA.hy926 cells.

参考文献/REFERENCES:

杨亭, 倪振洪, 龚薇, 等. 盐酸青藤碱诱导EA.hy926细胞自噬及其在抗炎中的作用[J]. 第三军医大学学报, 2013, 35(11):1084-1087.

相似文献/REFERENCES:

[1] 丁雯, 倪振洪, 程攀科, 等. 左旋棉酚通过细胞自噬下调Namalwa细胞中B淋巴细胞刺激因子的表达[J]. 第三军医大学学报, 2012, 34(16):1613.

Ding Wen, Ni Zhenhong, Cheng Panke, et al. Mechanism of (-)-gossypol down-regulating B lymphocyte stimulator expression in Namalwa cells via autophagy[J]. J Third Mil Med Univ, 2012, 34(11):1613.

[2] 倪振洪, 王滨, 丁雯, 等. 左旋棉酚通过ERK通路诱导Daudi细胞发生自噬及意义[J]. 第三军医大学学报, 2012, 34(23):2384.

Ni Zhenhong, Wang Bin, Ding Wen, et al. (-)-gossypol induces autophagy in Daudi cells through ERK signal pathway[J]. J Third Mil Med Univ, 2012, 34(11):2384.

[3] 杨鹏宇, 张建生, 李强, 等. 雷帕霉素联合嘧啶亚硝脲抑制U87-MG胶质瘤细胞增殖[J]. 第三军医大学学报, 2010, 32(14):1529.