Cite this as: Guan WANG, Mingyue HAO, Qiong LIU, Yanlong JIANG, Haibin HUANG, Guilian YANG, Chunfeng WANG. Protective effect of recombinant *Lactobacillus plantarum* against H_2O_2-induced oxidative stress in HUVEC cells[J]. *Journal of Zhejiang University Science B*, 2021, 22(5): 348-365. https://doi.org/10.1631/jzus.B2000441

Protective effect of recombinant *Lactobacillus plantarum* against H_2O_2-induced oxidative stress in HUVEC cells

Key words: Oxidative stress; Apoptosis; HUVEC cells; Hydrogen peroxide

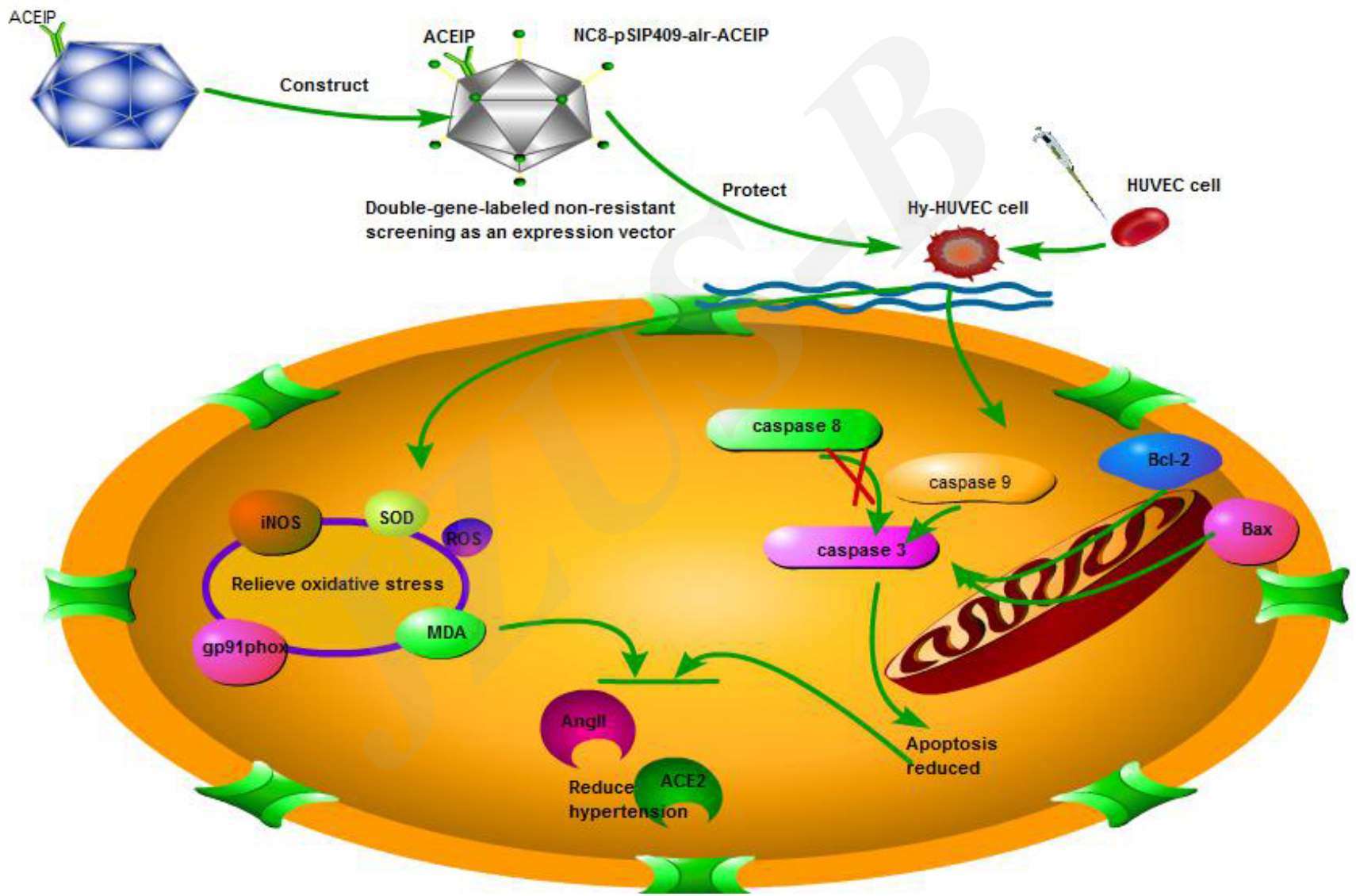
Research Summary

This review mainly focused on the protective effect of recombinant *Lactobacillus plantarum* against H_2O_2-induced oxidative stress in human umbilical vein cells (HUVEC).

- ***Lb. plantarum*** **(NC8-pSIP409-alr-ACEIP) with a double-gene-labeled non-resistant screen as an expression vector was constructed**
- **NC8-pSIP409-alr-ACEIP could effectively relieve the oxidative stress in Hy-HUVEC cells**
- **NC8-pSIP409-alr-ACEIP reduce apoptosis induced by mitochondrial apoptosis pathway**
- **NC8-pSIP409-alr-ACEIP reduce hypertension related proteins, which may be the preliminary mechanism of NC8-pSIP409-alr-ACEIP protecting vascular endothelial cell injury**

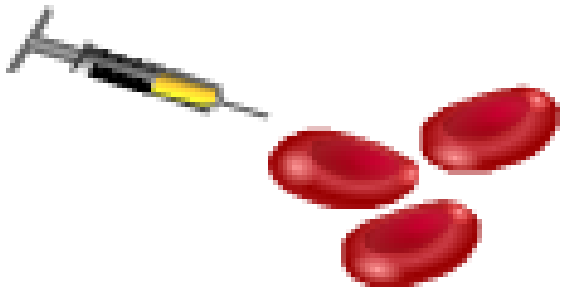
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Research Summary



Innovation points

- **NC8-pSIP409-alr-ACEIP was constructed**
- **NC8-pSIP409-alr-ACEIP can decrease the apoptotic rate of Hy-HUVEC cells**
- **NC8-pSIP409-alr-ACEIP can reduce the occurrence of oxidative stress in cells**
- **In vitro, NC8-pSIP409-alr-ACEIP can effectively reduce the protein associated with hypertension.**



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