

# **Astaxanthin protects against early acute kidney injury in severely-burned rats through inactivating TLR4/MyD88/NF- $\kappa$ B axis and upregulating heme oxygenase-1**

Songxue Guo<sup>1#</sup>, Linsen Guo<sup>2#</sup>, Quan Fang<sup>1</sup>, Meirong Yu<sup>3</sup>, Liping Zhang<sup>4</sup>, Chuangang You<sup>4</sup>, Xingang Wang<sup>4</sup> and Chunmao Han<sup>4,\*</sup>

<sup>1</sup> Department of Plastic Surgery, The Second Affiliated Hospital Zhejiang University School of Medicine, 1511 Jianghong Road, Hangzhou 310000, Zhejiang, China;

<sup>2</sup> Department of Burns, Changzhou No.7 People's Hospital, 288 East Yanling Road, Changzhou 213011, Jiangsu, China;

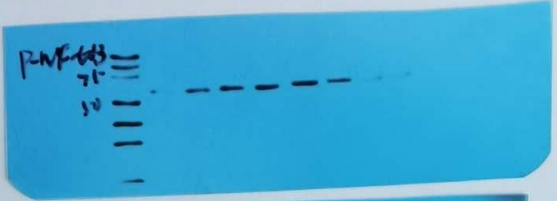
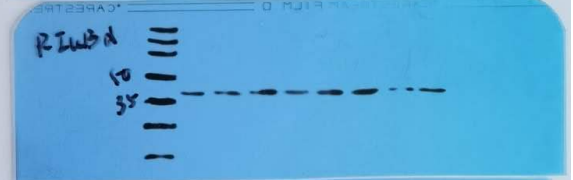
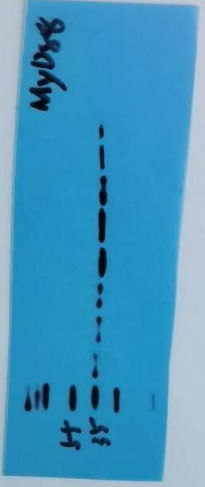
<sup>3</sup> Clinical Research Center, The Second Affiliated Hospital Zhejiang University School of Medicine, 88 Jiefang Road, Hangzhou 310009, Zhejiang, China;

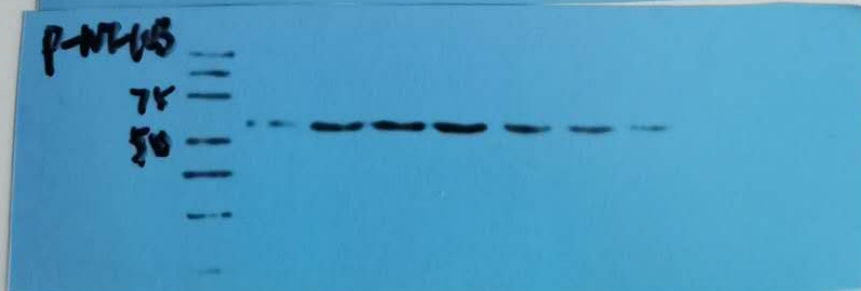
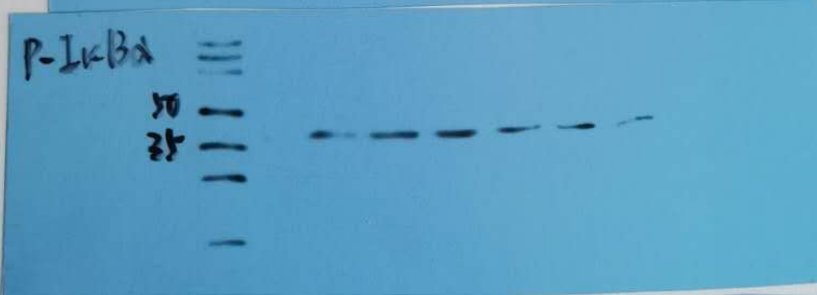
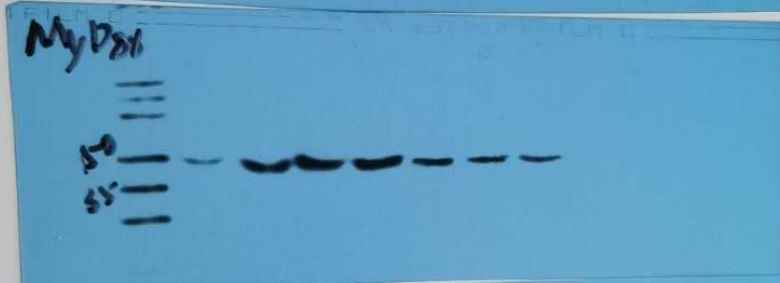
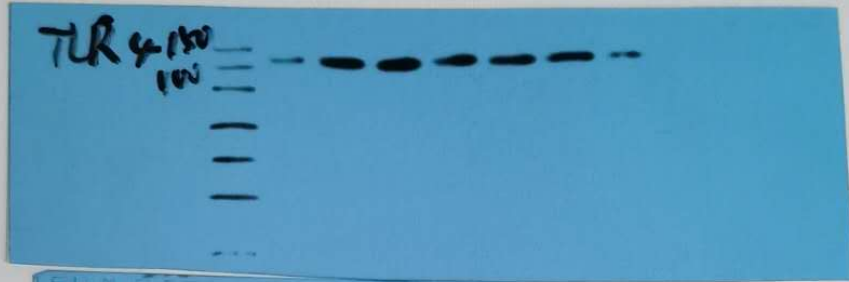
<sup>4</sup> Department of Burns, The Second Affiliated Hospital Zhejiang University School of Medicine, 88 Jiefang Road, Hangzhou 310009, Zhejiang, China;

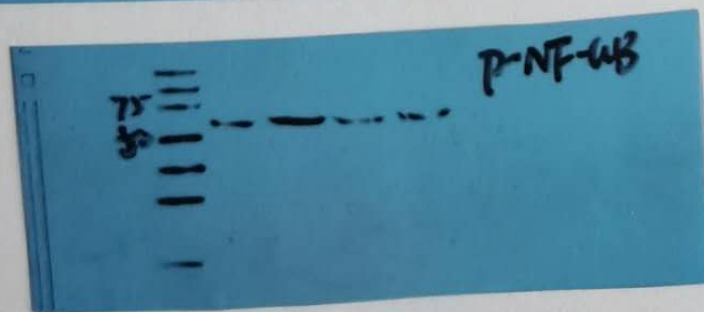
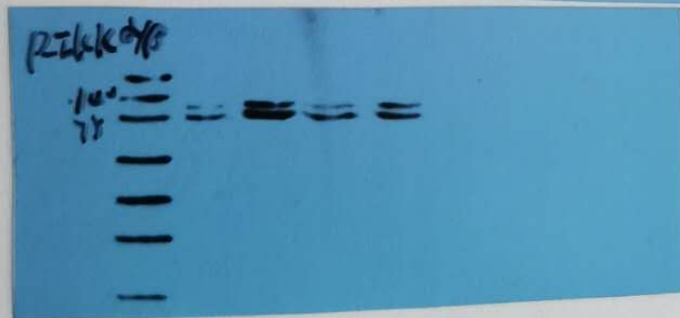
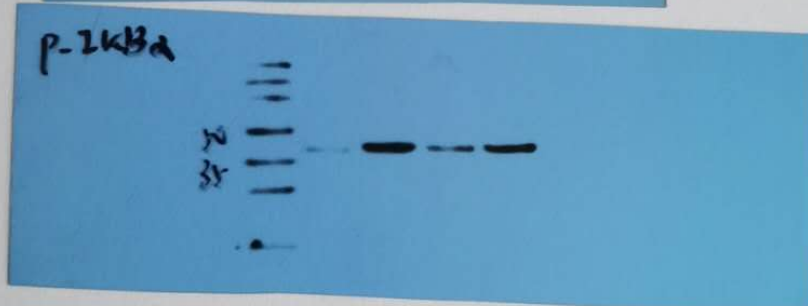
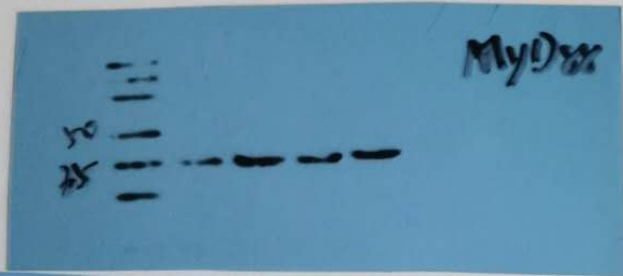
<sup>#</sup>The authors contribute equally to this study.

\*Authors to whom correspondence should be addressed; E-Mail: zrskk@zju.edu.cn;

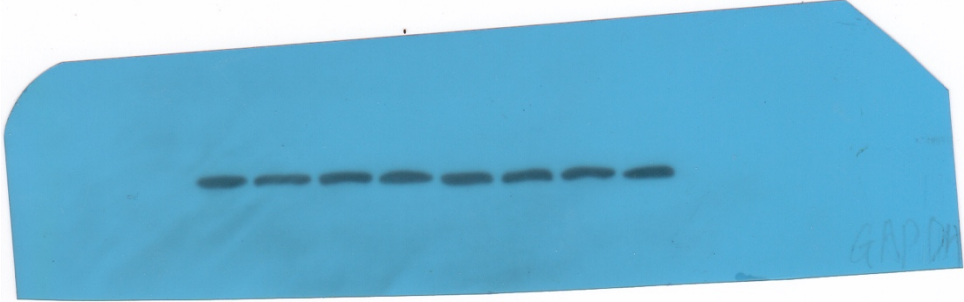
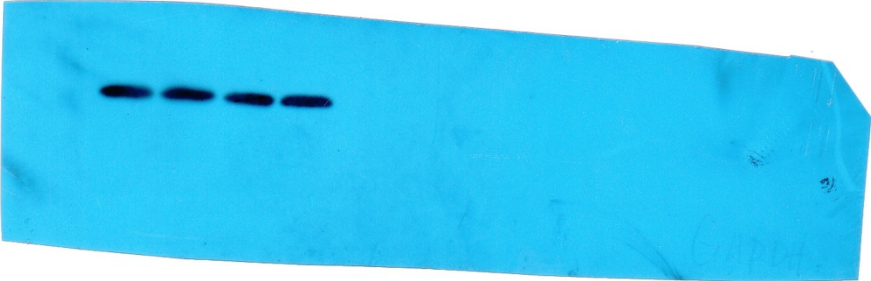
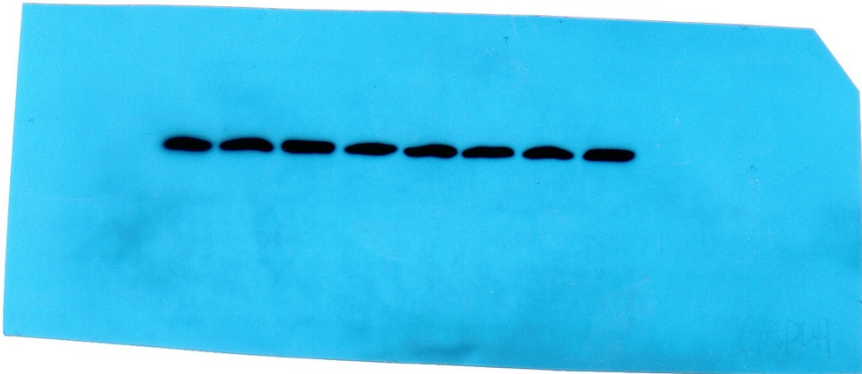
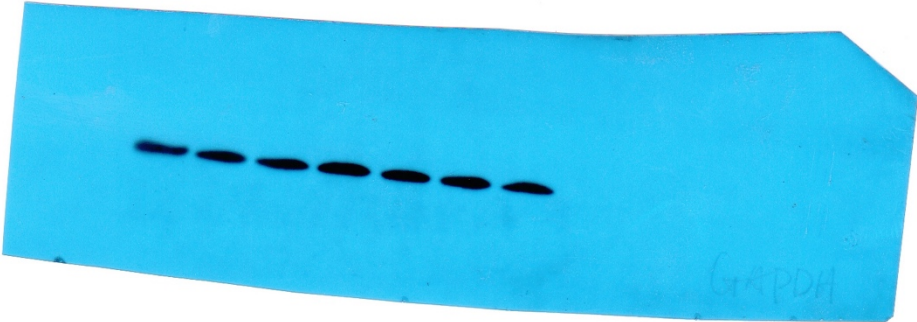
Tel/Fax: +86-5710-8776-7187.



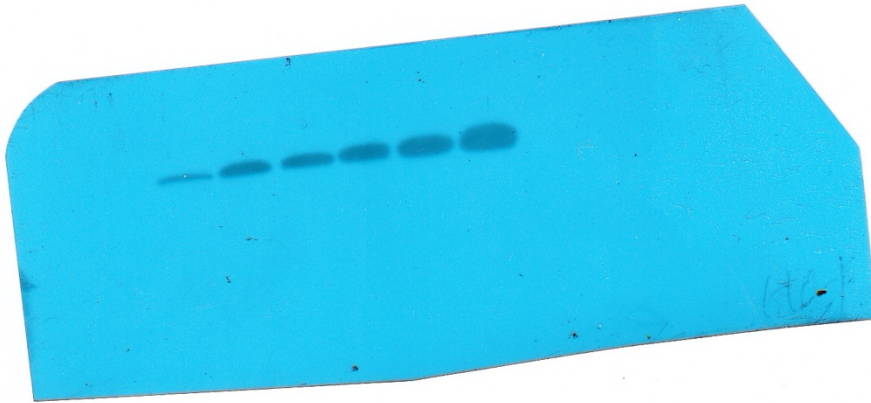




GAPDH



HO-1



GAPDH

