Supplementary materials

Selective brain cooling achieves peripheral organs protection in hemorrhagic shock resuscitation via preserving the integrity of the brain-gut axis

Chien-Ming Chao^{1,2}, Chien-Chin Hsu³, Chien-Cheng Huang^{3,4,5}, Chung-Han Wang⁶, Mao-Tsun Lin⁶, Ching-Ping Chang^{6,⋈}, Hung-Jung Lin^{3,7,⋈}, Chung-Ching Chio^{8,⋈}

¹Department of Intensive Care Medicine, Chi Mei Medical Center, Liouying, Tainan, Taiwan

²Department of Nursing, Min-Hwei College of Health Care Management, Tainan, Taiwan

³Department of Emergency Medicine, Chi Mei Medical Center, Tainan, Taiwan ⁴Department of Senior Services, Southern Taiwan University of Science and Technology, Tainan, Taiwan

⁵Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan

⁶Department of Medical Research, Chi Mei Medical Center, Tainan, Taiwan

⁷Department of Medicine, Taipei Medical University, Taipei, Taiwan

⁸Division of Neurosurgery, Department of Surgery, Chi Mei Medical Center, Tainan, Taiwan

Correspondence to:

Ching-Ping Chang, Ph.D., Department of Medical Research, Chi Mei Medical Center. Address: No. 901, Zhonghua Rd, Yongkang District, Tainan City 710, Taiwan.

Phone: +886-6-2812811 ext 52657; fax: +886-6-2832639; e-mail: jessica.cpchang@gmail.com or a50831@mail.chimei.org.tw

Hung-Jung Lin, M.D., Department of Emergency Medicine, Chi Mei Medical Center. Address: No. 901, Zhonghua Rd, Yongkang District, Tainan City 710, Taiwan. Phone: +886-6-2812811 ext 52000; fax: +886-6-2832639; e-mail: 790001@mail.chimei.org.tw

Chung-Ching Chio, M.D., Division of Neurosurgery, Department of Surgery, Chi Mei Medical Center. Address: No. 901, Zhonghua Rd, Yongkang District, Tainan City 710, Taiwan. Phone: +886-6-2812811 ext 52000; fax: +886-6-2832639; e-mail: chiocc@ms28.hinet.net

Supplemental Table 1. Antibodies and kits used in immunofluorescence staining (IF), Western blotting (WB), and ELISA.

Antibody	Company	Titre	Catalogue #	Purpose
Claudin-1	Invitrogen	1:200	2H10D10	IF,WB
	Abcam	1:1000	Ab15098	
ZO-1	Abcam	1:200~1000	Ab96587	IF, WB
β-actin	Santa Cruz	1:5000~10000	sc-47778	WB
Rat IL-1β ELISA	R & D Systems	according to the	DY501	ELISA
kit		manufacturer protocol		
Rat IL-6 ELISA kit	BD Biosciences	according to the	550319	ELISA
		manufacturer protocol		
Rat TNF-α ELISA	BD Biosciences	according to the	558535	ELISA
kit		manufacturer protocol		
Rat IL-18 ELISA	Abcam	according to the	ab213909	ELISA
kit		manufacturer protocol		
4'6-diamidino-2-ph	Thermo Fisher	1: 5000~25000	62247	IF
enylindole (DAPI)				
Secondary antibody	Invitrogen	1:400	A11008	IF
Alexa Fluor 488				
(rabbit IgG)				
Secondary antibody	Invitrogen	1:400	A11004	IF
Alexa Fluor 568				
(mouse IgG)				
Anti-rabbit IgG,	Cell Signaling	1:2000	7074	WB
HRP-linked				

#61191k-R1

antibody				
Anti-mouse IgG,	Cell Signaling	1:2000	7076	WB
HRP-linked				
antibody				