

Table S1. The basic components of STP

	Moisture (%)	Ash (%)	Total protein (%)	Peptide content (%)
STP	4.92±0.06	1.32±0.05	90.84±0.45	87.90±0.08

Table S2. Amino acid composition of the STP

Amino acids	Content (mg/g)	Ratio (%)
Aspartic acid	59.81	7.86
Glutamic acid	115.02	15.11
Serine	23.72	3.12
Glycine	119.99	15.76
Histidine	9.18	1.21
Arginine	31.28	4.11
Threonine*	22.84	3.00
Alanine	56.15	7.38
Proline	65.96	8.67
Tyrosine	21.14	2.78
Valine*	35.00	4.60
Methionine*	14.89	1.96
Cystine	12.22	1.61
Isoleucine*	50.61	6.65
Leucine*	49.09	6.45
Phenylalanine*	23.68	3.11
Lysine*	50.59	6.65
Tryptophan	ND	ND
Essential amino acids	246.67	32.41
Total amino acids	761.17	100

“*” represents essential amino acids, “ND” represents not detected.

Table S3 Molecular mass distribution of STP

Molecular mass (Da)	Retention time (min)	Ratio of Area/(%)
3000-5000	14.49-15.41	0.11
2000-3000	15.41-16.98	0.60
1000-2000	16.98-18.31	6.06
500-1000	18.31-19.86	23.68
180-500	19.86-20.47	56.05
<180	20.47	13.50

Table S4. Mice weigh and energy intake

Group	Body weight(g)			Food intake (g/d)	Energy intake (g/d)
	Initial	Terminal	Increased		
Control	26.02±1.46	36.01±3.44	9.99±2.81	4.72±0.22	17.45±0.80
WP	26.10±1.46	37.19±2.92	11.09±2.41	4.85±0.37	17.95±1.37
STP-L	25.99±1.22	35.74±2.37	9.74±2.40	4.67±0.35	17.30±1.30
STP-M	25.78±1.16	36.51±2.53	10.73±2.49	4.66±0.12	17.23±0.45
STP-H	25.94±1.15	35.93±2.69	9.99±2.14	4.71±0.18	17.44±0.66

动物实验伦理审查同意书

Affidavit of Approval of Animal Ethical and Welfare

伦理申请编号	201909-0450	批准编号 Approval No.	IACUC-20190930-07
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本《动物实验方案》经过实验动物管理与伦理委员会审核，符合动物保护、动物福利和伦理原则，符合国家实验动物福利伦理的相关规定。方案的相关信息如下：

The Animal experiment protocol listed below has been reviewed and approved by Laboratory animal management and ethics committee of ZCMU.

实验名称 Protocol Title	甲鱼肽的抗疲劳作用 Anti-fatigue function of soft-shelled turtle peptides in mice				
申请人姓名 Applicant	史晋源 Shi Jinyuan	职称/学位 Title/Degree	硕士 master	邮箱 Email	970354908@qq.com
实验负责人 Principal Investigator	冯凤琴 Feng Fengqin	职称/学位 Title/Degree	教授 professor	邮箱 Email	fengfq@zju.edu.cn
院系 (部门) Department	浙江大学生物系统与食品科学学院 college of biosystems engineering and food science, zhejiang university				
拟实验时间 Period of Protocol	2019-11-01 - 2019-12-31	实验动物使用许可证 Number of Animal Use Permit		SYXK (浙) 2018-0012	
审核意见 Results of Inspection	<input type="checkbox"/> 符合动物福利伦理要求，可以进行实验。 Agree <input type="checkbox"/> 调整方案后，可以进行实验。 Agree after modify				

浙江中医药大学实验动物管理与伦理委员会
Animal Ethical and Welfare Committee of ZCMU

中心IACUC主席 (Chairman) :

日期 (Date):

Figure S1 Approval of local ethical commission for animal experiment