## **Supporting Information**

### J. Chem. Metrol. X:X (2025) XX-XX

# Sesamin and 4-hydroxy-sesamin from *Cinnamomum*camphora: extraction, purification and anti-inflammatory effects on the BV2 microglia by LPS-induced

# Qi Sun<sup>1#</sup>, Fen Liu<sup>2#</sup>, Jiyu Zhang<sup>1#</sup>, Qiang Song<sup>2#</sup>, Mengfei Xu<sup>1</sup>, Mingfeng Chen<sup>2</sup>, Xiaoqin Zhang<sup>3\*</sup> and Lin Ni<sup>1</sup>

<sup>&</sup>lt;sup>3</sup> College of Pharmacy, Fujian University of Traditional Chinese Medicine, Fuzhou, China

<b>Table of Contents</b>		
S1: Method Validation Data	2	
Table S1: Analytical method validation results for the reference standard, including		
linear range, linear equation, coefficient of determination (R2), precision (RSD), stability		
(RSD), repeatability (RSD), and accuracy (mean spiked recovery).		
Figure S1: The purity of 4-hydroxy-sesamin was determined by high-performance	3	
liquid chromatography (HPLC) with detection at 235 nm.		
Figure S2: The purity of sesamin was determined by high-performance liquid	3	
chromatography (HPLC) with detection at 235 nm.		
Reference	3	

<sup>&</sup>lt;sup>1</sup> Fujian Agriculture and Forestry University, Fuzhou, China;

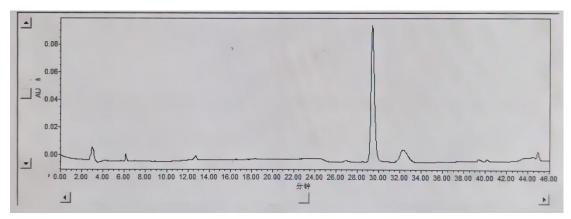
<sup>&</sup>lt;sup>2</sup> Fujian Medical University Provincial Clinical Medical College, Fujian Provincial Hospital, Fuzhou University Affiliated Provincial Hospital, Fuzhou, China;

#### S1: Method Validation Data

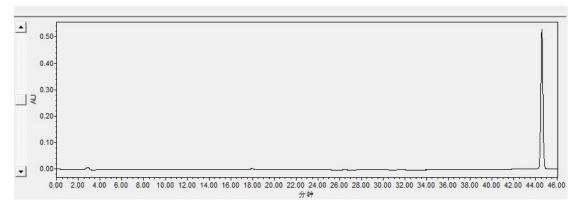
The reference standards of sesamin and 9-hydroxysesamin were prepared in the laboratory. The purity of the compounds was determined by HPLC, and the mass fraction was calculated to be over 99% using the normalization method.[1]

**Table S1:** Analytical method validation results for the reference standard, including linear range, linear equation, coefficient of determination (R<sup>2</sup>), precision (RSD), stability (RSD), repeatability (RSD), and accuracy (mean spiked recovery).

	Sesamin	4-hydroxy-sesamin	Note
Linear range	0.1–10 μg/mL	$0.1-10~\mu g/mL$	$R^2 \ge 0.999$
Linear regression equation	$y=2*10^9x+8316.5$	$y=2*10^9x+144585$	
Coefficient of determination (R2)	0.9997	0.9996	符合 (OK)
Precision (RSD)	0.29%	0.28%	≤1.0%
Stability (RSD)	0.88%	0.67%	
Repeatability(RSD)	0.55%	0.48%	
Accuracy (Mean spiked recovery)	97.5%	98.4%	



**Figure S1:** The purity of 4-hydroxy-sesamin was determined by high-performance liquid chromatography (HPLC) with detection at 235 nm.



**Figure S2:** The purity of sesamin was determined by high-performance liquid chromatography (HPLC) with detection at 235 nm.

### Reference

[1] M.Guo, B.B.Huang, L.H.Li, S.R.Lin, M.Q.Huang and L.Ni (2023). Determination and content analysis of sesamin - like components in *Cinnamomum camphora*, *Pharm. Res.* **42**, 23 - 27.