

1 **Supplementary Information**

2 **Plant Material**

3 *Garcinia esculenta* Y. H. Li twigs were collected in August 2010 in Nujiang,
4 Yunnan Province, People's Republic of China. Plant material was identified by Prof.
5 Yuanchuan Zhou, Yunnan University of Traditional Chinese Medicine. A voucher
6 specimen (Herbarium No. 20100801) has been deposited at the Innovative Research
7 Laboratory of TCM, Shanghai University of Traditional Chinese Medicine.

8 **Extraction, Isolation and Identification of Guttiferone F**

9 Air-dried and powdered twigs of the plant (4 kg) were extracted with petroleum
10 ether (5 × 20 L, two days each). The combined extracts were evaporated to dryness
11 under vacuum to give fraction I (40 g). The remaining materials were refluxed with
12 80% EtOH (v/v, 5 × 20 L). The combined extracts were evaporated to dryness under
13 vacuum, and the residue was suspended in H₂O (5 L) and extracted with EtOAc (5 × 5
14 L) to give fractions II (50 g, EtOAc soluble) and III (the aqueous fraction),
15 respectively. The remaining materials were refluxed with distilled water (5 × 20 L) to
16 give the water-soluble fraction (IV). Fraction I (37 g) was chromatographed on a
17 silica gel column (CC) using a gradient of petroleum ether–EtOAc (100:0 to 50:50,
18 v/v) guided by TLC, yielding fifteen fractions (IA–IO). Fraction IL was
19 chromatographed on MCI gel eluted successively with 90% and 100% EtOH to afford
20 two subfractions (IL1 and IL2). Fraction IL1 (10.5 g) was subjected to reverse-phase
21 C₁₈ silica gel CC, eluted in a step gradient manner with MeOH–H₂O (70:30 to 100:0)
22 to yield Guttiferone F (350 mg). The structure of Guttiferone F was elucidated as

23 shown (Figure 1) by comparison of their spectroscopic data with published data.[23]

24 The purity of Guttiferone F was checked by UPLC-DAD and the result displayed
25 purity of above 98%.

26 **Supplementary Chemicals**

27 Calcium chelator BAPTA-AM (Cat. A1076) and JNK inhibitor SP600125 (Cat. S5567)
28 were purchased from Sigma-Aldrich. TMRE, (Tetramethylrhodamine, Ethyl Ester,
29 Perchlorate, Cat. T-669) was purchased from Molecular Probes.

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