frontiers

Supplementary Material

Lychee Seed Fraction Inhibits Aβ (1–42)-Induced Neuroinflammation in BV-2 Cells via NF-κB Signaling Pathway

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Supplementary Figures and Tables

Supplementary Figure 1. Identification of the chemical components in LSF using Agilent 6230 UHPLC-DAD-TOF-MS. LSF in methanol was separated on an Agilent Zorbax Eclipse Plus C-18 (100 mm ×2.1 mm) column (particle size: 1.8 μm) at a flow rate of 0.35 mL·min^{-1}. The data was acquired in the scan mode from m/z 100–1700 Da with 2.0 spectra/s. (A) The total ion chromatogram (TIC) of LSF in negative mode. (B) The total ion chromatogram (TIC) of LSF in positive mode. (C) DAD chromatogram recorded at 280 nm.

Supplementary Figure 2. Release of the pro-inflammatory cytokines in Aβ(1-42)-induced BV-2 cells. ELISA was used to determine the levels of IL-1β (A), COX-2 (B) and iNOS (C) in the cell-free supernatants. *$P < 0.05$, **$P < 0.01$, ***$P < 0.001$ vs. Control.

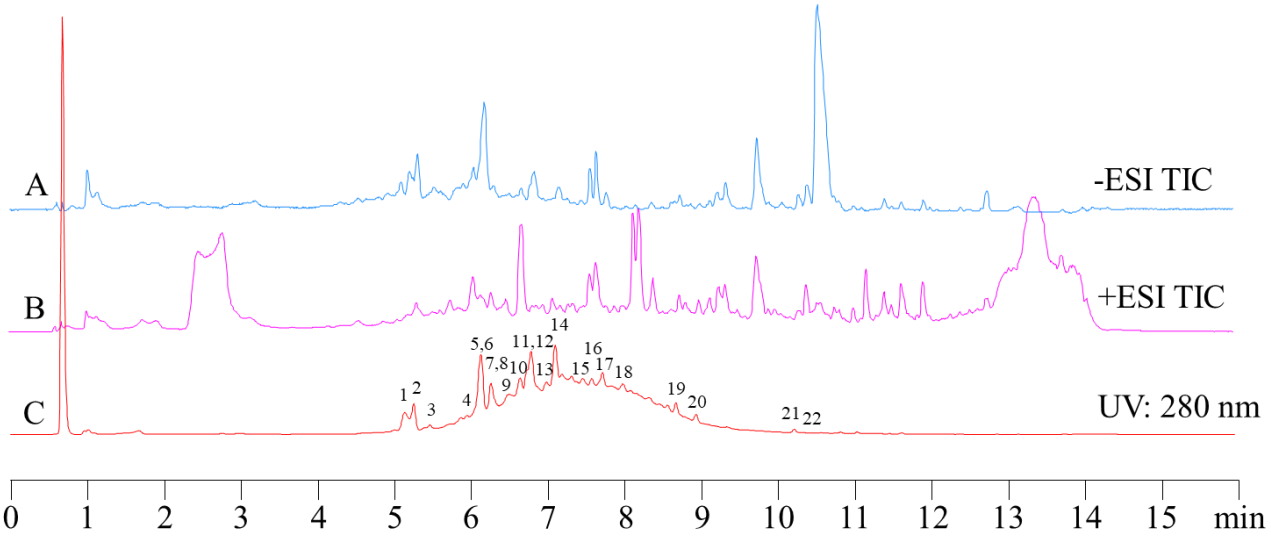
Supplementary Figure 3. Inhibition effect of LSF on the release of the pro-inflammatory cytokines in Aβ(1-42)-induced BV-2 cells. BV-2 cells were pretreated with 5 μM Aβ(1-42) for 12 h, then followed with an incubation of 0.007-0.48 mg·L^{-1} LSF for another 12 h. ELISA was used to determine the levels of IL-1β (A), COX-2 (B) and iNOS (C) in the cell-free supernatants. **$P < 0.01$ vs. Control; $^{\#}P < 0.05$, $^{\#\#}P < 0.01$, $^{\#\#\#}P < 0.01$ vs. Model.

Supplementary Figure 4. Inhibition effect of LSF on the inflammatory cytokines in Aβ(1-42)-induced BV-2 cells. BV-2 cells were pretreated with 5 μM Aβ(1-42) for 24 h, then followed with an incubation

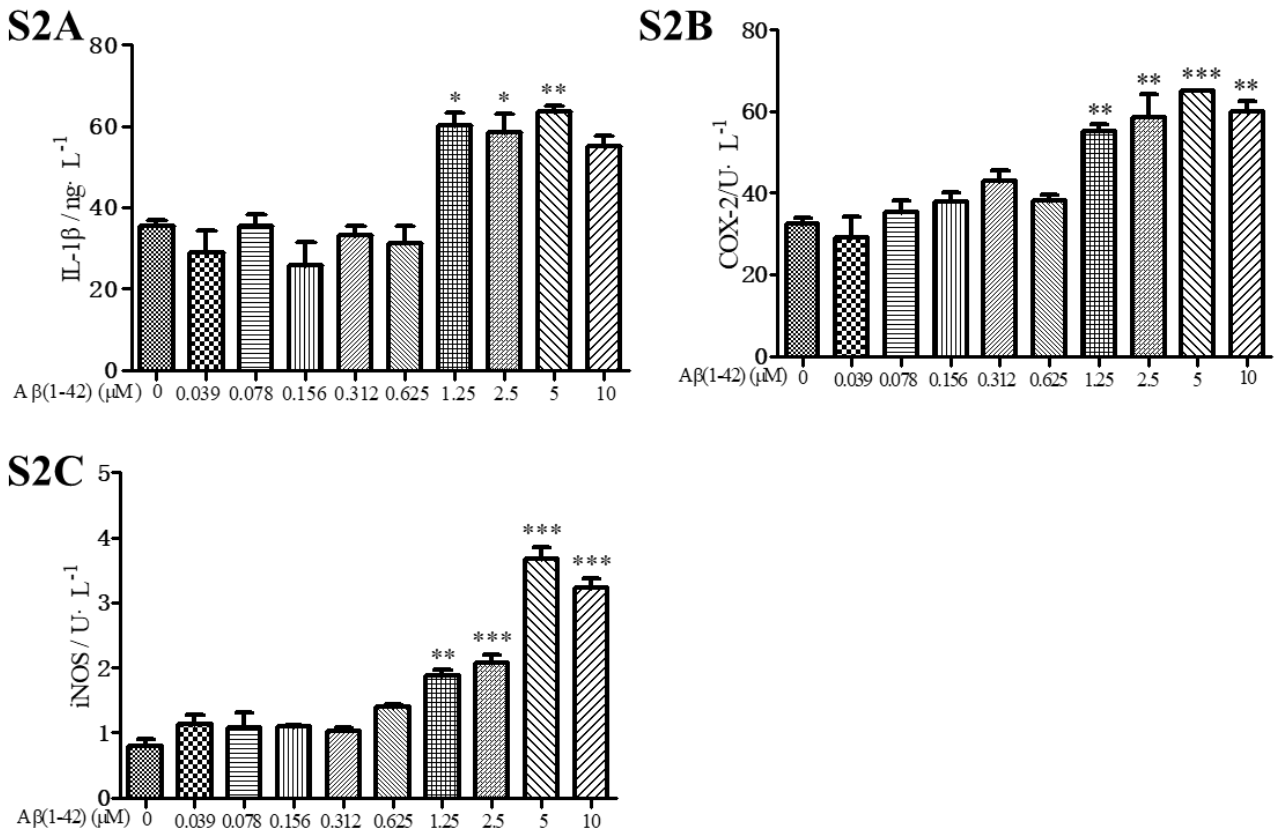
of 0.007-0.48 mg Ł$^{-1}$ LSF for another 24 h. ELISA was used to determine the levels of IL-1β (A), COX-2 (B) and iNOS (C) in the cell-free supernatants. *P < 0.05, **P < 0.01 vs. Control; $^{\#}P$ < 0.05 vs. Model.

Supplementary Figure 5. The full-length Western blotting images.

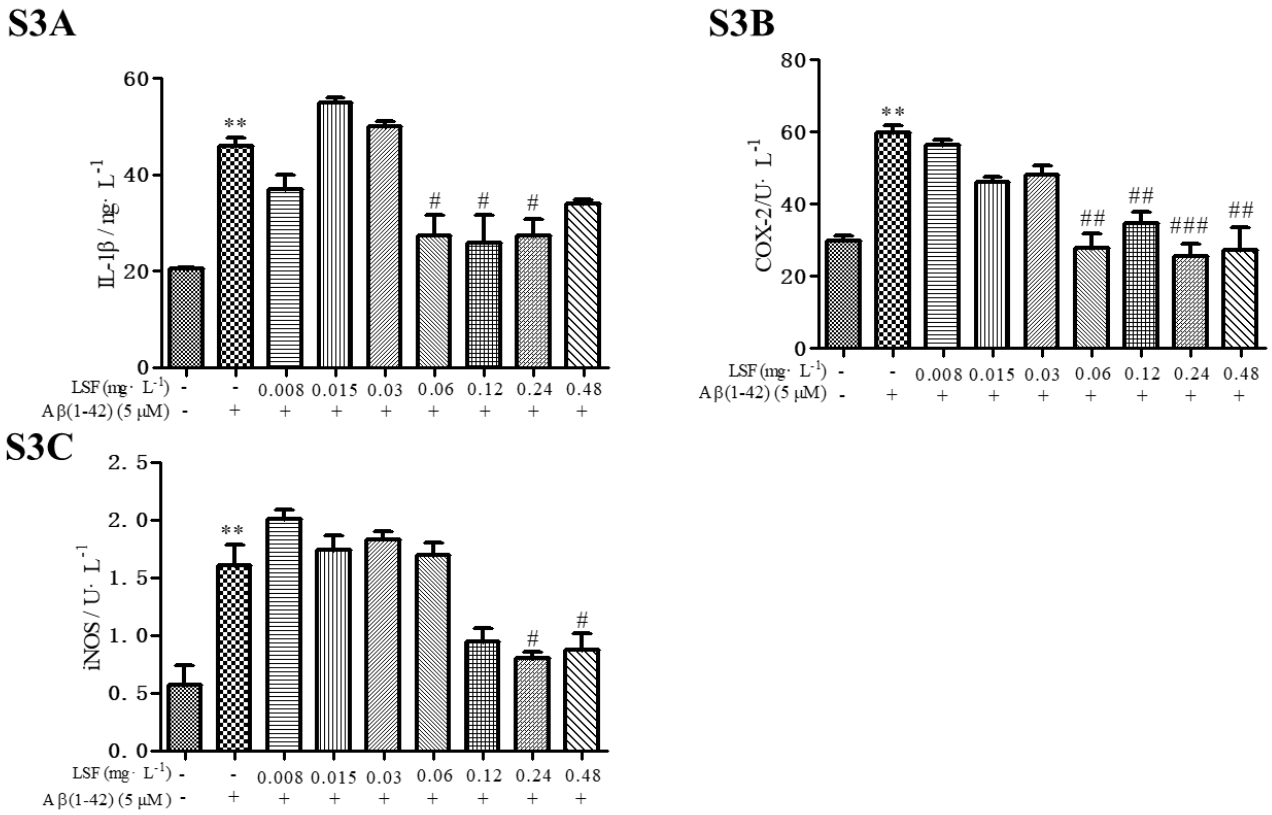
Supplementary Figure 1



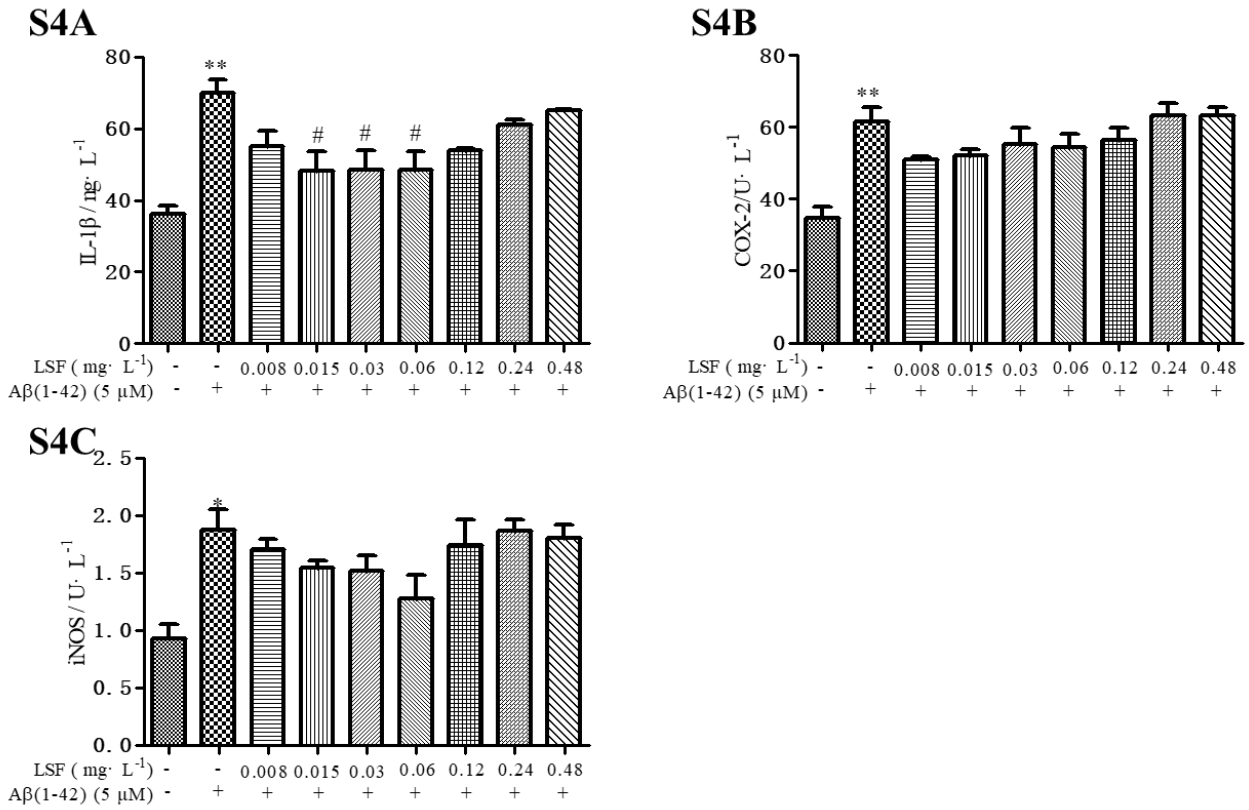
Supplementary Figure 2



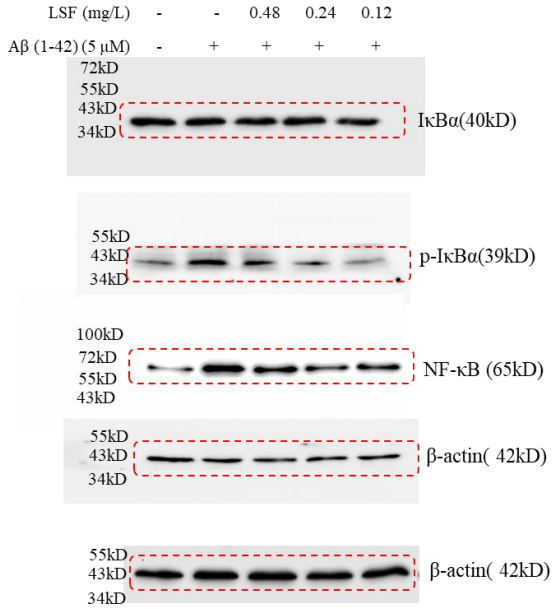
Supplementary Figure 3

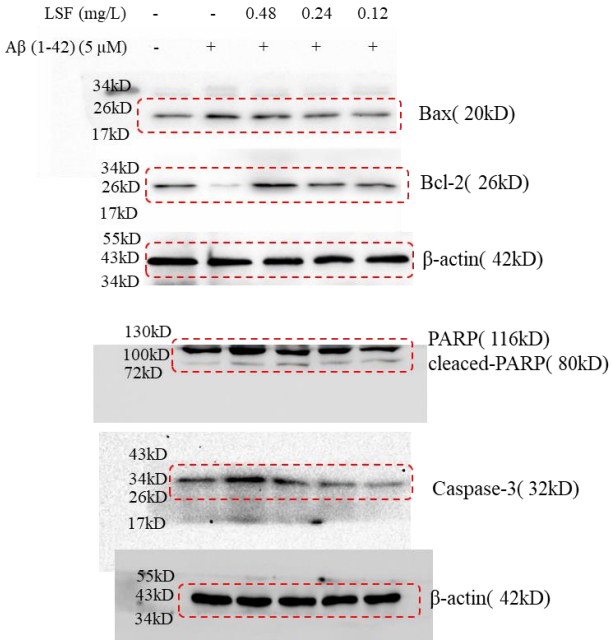


Supplementary Figure 4



Supplementary Figure 5





Supplementary Table 1: The characterization of the chemical components in LSF by using UHPLC-DAD-TOF-MS analysis in negative and positive mode

Peak No.	Retention time (min)	$[M-H]^-$ (m/z) (Obs)	Positive mode	(m/z) (Obs)	Molecular weight	Chemical name
1	5.262	337.0798	$[M+Na]^+$	361.0936	338	Hexahydroxydiphenic acid
2	5.347	337.0803	$[M+Na]^+$	361.0924	338	Hexahydroxydiphenic acid
3	5.578	289.0723	$[M+H]^+$	291.0891	290	(–)-Catechin
4	5.968	577.1175	$[M+H]^+$	579.1541	578	B-type procyanidin trimer
5	6.084	387.1552	$[M+Na]^+$	411.1666	388	Undentified
6	6.167	289.0628	$[M+H]^+$	291.0891	290	(–)-Epicatechin
7	6.234	337.0841	$[M+Na]^+$	361.0926	338	Hexahydroxydiphenic acid
8	6.328	863.1626	$[M+H]^+$	865.2045	864	A-type procyanidin trimer
9	6.535	479.1106	$[M+H]^+$	481.2662	480	Unidentified
10	6.718	863.1626	$[M+H]^+$	865.0246	864	A-type procyanidin trimer
11	6.85	575.1061	$[M+H]^+$	577.1397	576	A-type procyanidin dimer
12	6.89	609.1322	$[M+Na]^+$	633.1477	610	Rutin
13	7.134	463.0794	$[M+Na]^+$	487.2195	464	Quercetin-3-O-β-D-glucoside
14	7.214	575.1071	$[M+H]^+$	577.1392	576	A-type procyanidin dimer
15	7.624	419.1833	$[M+Na]^+$	443.1927	420	Unidentified
16	7.712	405.2047	$[M+Na]^+$	429.2131	406	Litchioside C
17	7.815	435.1204	$[M+Na]^+$	459.1294	436	Phlorizin
18	8.048	367.0619	$[M+Na]^+$	367.2116	368	Unidentified
19	8.779	283.055	$[M+Na]^+$	307.0599	284	Unidentified
20	9.05	583.3368	$[M+Na]^+$	607.3498	584	Litchioside A
21	10.105	865.3929	$[M+H]^+$	867.378	866	B-type procyanidin trimer
22	10.324	329.2328	$[M+Na]^+$	353.2308	330	Unidentified