

Suppl. 1 Dose response curves Figure S1-S5

Dual Effect of Glucuronidation towards Antioxidant Pyrogallol-pattern Phytophenol: A Comparison between Scutellarein and Scutellarin

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Note: This Supporting information provides the original data of **Table 1** in the main text. All data underline are mentioned in **Table 1** in the main text.

1. DPPH•-scavenging assay

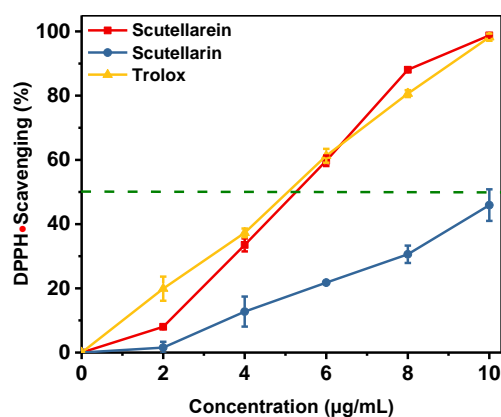


Figure S1: The dose response curves of scutellarein and scutellarin in DPPH•-scavenging assay. Each value is expressed as mean \pm SD (n = 3).

Tab. S1 The comparison of IC₅₀ values of scutellarein and scutellarin and positive control in DPPH•-scavenging assay.

	Mean \pm SD μ g/mL	Mean \pm SD μ M
scutellarein	5.4 \pm 0.0	18.7 \pm 0.1 ^a
scutellarin	11.2 \pm 0.8	24.2 \pm 1.7 ^b
Trolox	5.0 \pm 0.1	20.2 \pm 0.5 ^a

IC₅₀ value was defined as the concentration of 50% superoxide anion radical inhibition and calculated by linear regression which was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same column are significantly different (p<0.05).

2. ABTS•-scavenging assay

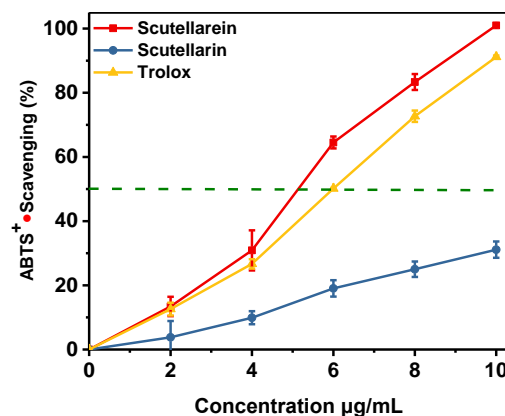


Figure S2: The dose response curves of scutellarein and scutellarin in ABTS•-scavenging assay. Each value is expressed as mean \pm SD (n = 3).

Tab. S2 The comparison of IC₅₀ values of scutellarein and scutellarin and positive control in ABTS^{•+}-scavenging assay.

	Mean±SD μg/mL	Mean±SD μM
scutellarein	5.2 ± 0.3	<u>18.3 ± 1.2</u> ^a
scutellarin	15.4 ± 1.3	<u>33.3 ± 2.9</u> ^c
Trolox	5.9 ± 0.1	<u>23.7 ± 0.4</u> ^b

IC₅₀ value was defined as the concentration of 50% superoxide anion radical inhibition and calculated by linear regression which was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same column are significantly different (p<0.05).

3. PTIO^{•+}-scavenging assay

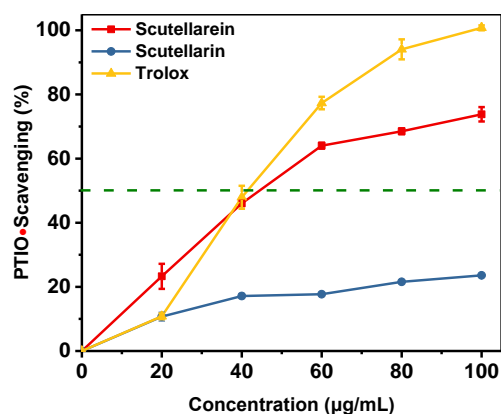


Figure S3: The dose response curves of scutellarein and scutellarin in PTIO^{•+}-scavenging assay. Each value is expressed as mean ± SD (n = 3).

Tab. S3 The comparison of IC₅₀ values of scutellarein and scutellarin and positive control in PTIO^{•+}-scavenging assay.

	Mean±SD μg/mL	Mean±SD μM
scutellarein	50.8 ± 2.2	<u>177.5 ± 7.8</u> ^a
scutellarin	266.9 ± 34.8	<u>577.2 ± 75.4</u> ^b
Trolox	46.5 ± 2.3	<u>185.7 ± 9.0</u> ^a

IC₅₀ value was defined as the concentration of 50% superoxide anion radical inhibition and calculated by linear regression which was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same column are significantly different (p<0.05).

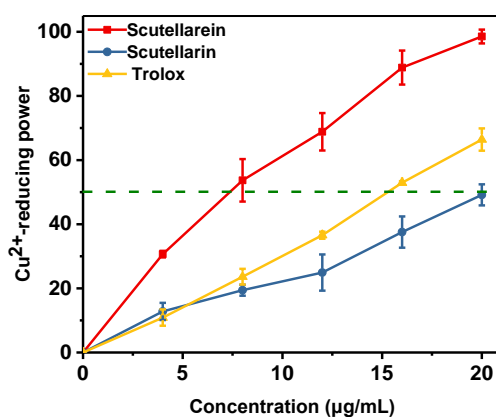
4. Cu^{2+} -reducing power assay

Figure S4: The dose response curves of scutellarein and scutellarin in Cu^{2+} -reducing power assay. Each value is expressed as mean \pm SD ($n = 3$).

Tab. S4 The comparison of IC_{50} values of scutellarein and scutellarin and positive control in Cu^{2+} -reducing power assay.

	Mean \pm SD $\mu\text{g/mL}$	Mean \pm SD μM
scutellarein	9.6 ± 0.4	33.5 ± 1.4^a
scutellarin	20.1 ± 0.7	43.4 ± 1.5^b
Trolox	15.4 ± 0.5	61.5 ± 2.0^c

IC_{50} value was defined as the concentration of 50% superoxide anion radical inhibition and calculated by linear regression which was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same column are significantly different ($p < 0.05$).

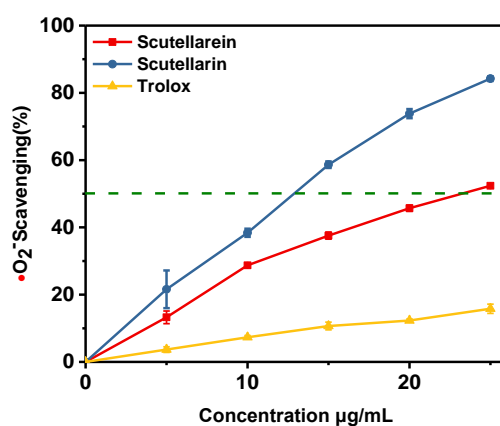
5. Superoxide anion ($\bullet\text{O}_2^-$) scavenging assay

Figure S5: The dose response curves of scutellarein and scutellarin in Superoxide anion ($\bullet\text{O}_2^-$) scavenging assay. Each value is expressed as mean \pm SD ($n = 3$).

Tab. S5 The comparison of IC₅₀ values of scutellarein and scutellarin and positive control in Superoxide anion ($\bullet\text{O}_2^-$) scavenging assay.

	Mean±SD μg/mL	Mean±SD μM
scutellarein	22.6 ± 0.2	<u>79.0 ± 0.5</u> ^b
scutellarin	13.3 ± 0.6	<u>28.8 ± 1.4</u> ^a
Trolox	83.4 ± 11.6	<u>291.5 ± 40.6</u> ^c

IC₅₀ value was defined as the concentration of 50% superoxide anion radical inhibition and calculated by linear regression which was analyzed by Origin 6.0 professional software. Means values with different superscripts in the same column are significantly different (p<0.05).