

Suppl. 3 Dose response curves

3',8"-Dimerization Enhances the Antioxidant Capacity of Flavonoids: Evidence from Acacetin and Isoginkgetin

Xican Li ^{1,2,*}, Xiaojian Ouyang ^{1,2}, Rongxin Cai ^{1,2}, and Dongfeng Chen ^{3,4,*}

- 1 School of Chinese Herbal Medicine, Guangzhou University of Chinese Medicine, Waihuan East Road No. 232, Guangzhou Higher Education Mega Center, Guangzhou 510006, China; oyxiaojian55@163.com (X.O.); choi_roy@foxmail.com (R.C.)
- 2 Innovative Research & Development Laboratory of TCM, Guangzhou University of Chinese Medicine, Waihuan East Road No. 232, Guangzhou Higher Education Mega Center, Guangzhou 510006, China;
- 3 School of Basic Medical Science & Research Center of Basic Integrative Medicine, Guangzhou University of Chinese Medicine, Guangzhou 510006, China; chen888@gzucm.edu.cn (D.C.)
- 4 The Research Center of Basic Integrative Medicine, Guangzhou University of Chinese Medicine, Guangzhou 510006, China.

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

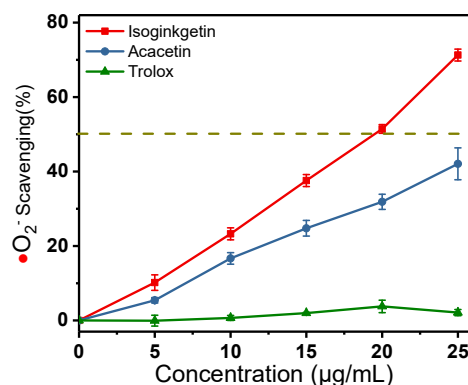


Figure S3.1: The dose response curves of acacetin and isoginkgetin in $\bullet\text{O}_2^-$ -inhibition assay. Each value is expressed as mean \pm SD (n = 3).

Tab. S1 The comparison of IC_{50} values of acacetin, isoginkgetin and positive control in $\bullet\text{O}_2^-$ scavenging assay.

	Mean \pm SD $\mu\text{g/mL}$	Mean \pm SD μM
isoginkgetin	18.7 \pm 0.2	33.1 \pm 0.4 ^a
acacetin	30.5 \pm 3.2	107.1 \pm 11.3 ^b
Trolox	1243.6 \pm 39.5	4968.4 \pm 157.9

The IC_{50} value was defined as the lowest concentration with 50% radical inhibition or relative reducing power, calculated by linear regression analysis, and expressed as the mean \pm SD (n = 3). The linear regression was analyzed by Origin 6.0 professional software. The IC_{50} values with different superscripts (a and b) between acacetin and isoginkgetin are significantly different ($p < 0.05$). Trolox was the positive control.

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

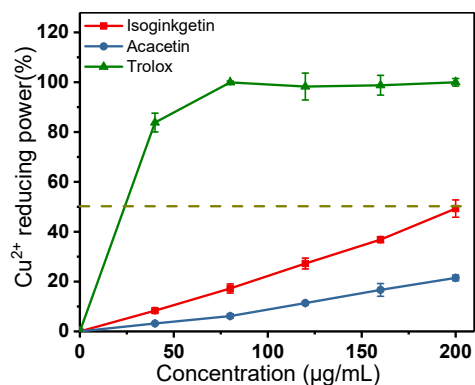


Figure S3.2: The dose response curves of acacetin and isoginkgetin in Cu^{2+} -reducing power assay. Each value is expressed as mean \pm SD (n = 3).

Tab. S2 The comparison of IC_{50} values of acacetin, isoginkgetin and positive control in Cu^{2+} -reducing power assay.

	Mean \pm SD $\mu\text{g/mL}$	Mean \pm SD μM
isoginkgetin	207.9 \pm 12.1	<u>367.1\pm21.4^a</u>
acacetin	428.2 \pm 9.5	<u>1506.2\pm33.4^b</u>
Trolox	9.5 \pm 0.4	<u>38.1\pm1.7</u>

The IC_{50} value was defined as the lowest concentration with 50% radical inhibition or relative reducing power, calculated by linear regression analysis, and expressed as the mean \pm SD (n = 3). The linear regression was analyzed by Origin 6.0 professional software. The IC_{50} values with different superscripts (a and b) between acacetin and isoginkgetin are significantly different ($p < 0.05$). Trolox was the positive control.

3. ABTS^{•+}-scavenging assay

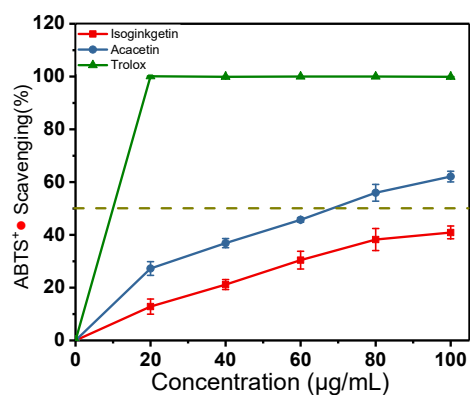


Figure S3.3: The dose response curves of acacetin and isoginkgetin in ABTS^{•+}-scavenging assay. Each value is expressed as mean \pm SD (n = 3).

Tab. S3 The comparison of IC₅₀ values of acacetin, isoginkgetin and positive control in ABTS^{•+}-scavenging assay.

	Mean \pm SD μ g/mL	Mean \pm SD μ M
isoginkgetin	118.6 \pm 8.6	<u>209.3\pm15.1^a</u>
acacetin	69.9 \pm 3.4	<u>246.2\pm11.8^b</u>
Trolox	5.7 \pm 0.1	<u>22.6\pm0.3</u>

The IC₅₀ value was defined as the lowest concentration with 50% radical inhibition or relative reducing power, calculated by linear regression analysis, and expressed as the mean \pm SD (n = 3). The linear regression was analyzed by Origin 6.0 professional software. The IC₅₀ values with different superscripts (a and b) between acacetin and isoginkgetin are significantly different (p < 0.05). Trolox was the positive control.