

# Comparison of Ferroptosis-inhibitory Mechanisms between Ferrostatin-1 and Dietary Stilbenes (Piceatannol and Astringin)

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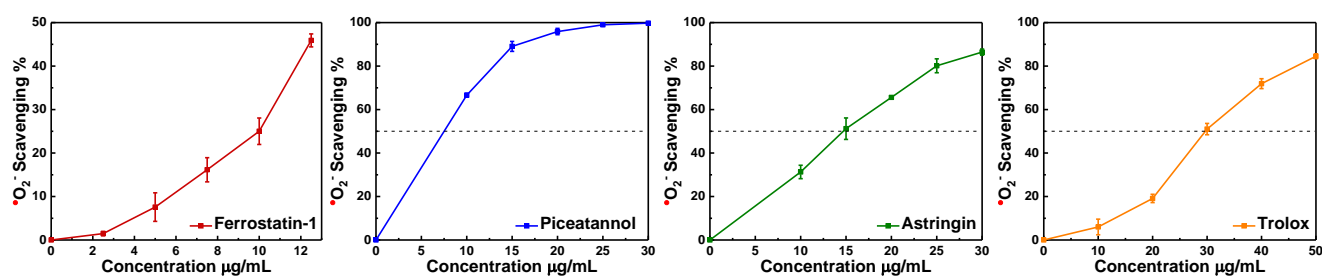
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**Note:** This Supporting Information provides the original data of [Table 1](#) in the main text. All data with [underline](#) are mentioned in **Table 1**.

# 1. $\cdot\text{O}_2^-$ -scavenging assay



**Fig. S1.1** The dose response curves of Ferrostatin-1, piceatannol, astringin, and Trolox in  $\cdot\text{O}_2^-$ -scavenging assay.

**Tab. S1.1** The comparison of  $\text{IC}_{50}$  values of Ferrostatin-1, piceatannol, astringin, and Trolox in  $\cdot\text{O}_2^-$ -scavenging assay.

	Ferrostatin-1	Piceatannol	Astringin	Trolox
$\mu\text{g/mL}$	$15.3 \pm 0.7$	$7.5 \pm 0.1$	$15.4 \pm 0.1$	$31.8 \pm 1.1$
<u><math>\mu\text{mol/L}</math></u>	<u><math>58.2 \pm 2.7^b</math></u>	<u><math>30.7 \pm 0.4^a</math></u>	<u><math>37.8 \pm 0.3^a</math></u>	<u><math>127.0 \pm 4.2^c</math></u>

The  $\text{IC}_{50}$  value was defined as the final concentration of 50% scavenging power, calculated by linear regression analysis, and expressed as the mean  $\pm$  SD ( $n = 3$ ). The linear regression was analyzed by the Origin 2017 professional software. The  $\text{IC}_{50}$  values with different superscripts (<sup>a</sup>, <sup>b</sup>, or <sup>c</sup>) in the same row, are significantly different ( $p < 0.05$ ). Trolox is the positive control.

2. PTIO•-scavenging assay (pH 4.5)

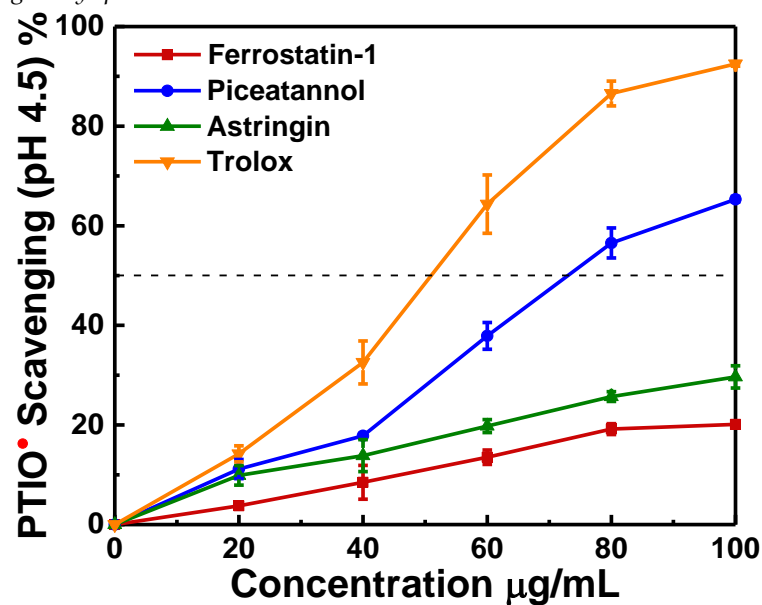


Fig. S1.2 The dose response curves of Ferrostatin-1, piceatannol, astringin, and Trolox in PTIO•-scavenging (pH 4.5) assay.

Tab. S1.2 The comparison of IC<sub>50</sub> values of Ferrostatin-1, piceatannol, astringin, and Trolox in PTIO•-scavenging (pH 4.5) assay.

	Ferrostatin-1	Piceatannol	Astringin	Trolox
μg/mL	230.6±8.7	76.3±2.9	167.1±10.4	51.6±2.1
<u>μmol/L</u>	<u>878.9±33.0<sup>d</sup></u>	<u>312.5±12.0<sup>b</sup></u>	<u>411.1±25.6<sup>c</sup></u>	<u>206.2±8.5<sup>a</sup></u>

The IC<sub>50</sub> value was defined as the final concentration of 50% scavenging power, calculated by linear regression analysis, and expressed as the mean ± SD (n = 3). The linear regression was analyzed by the Origin 2017 professional software. The IC<sub>50</sub> values with different superscripts (a, b, c, or d) in the same row, are significantly different ( $p < 0.05$ ). Trolox is the positive control.

3. PTIO•-scavenging assay (pH 7.4)

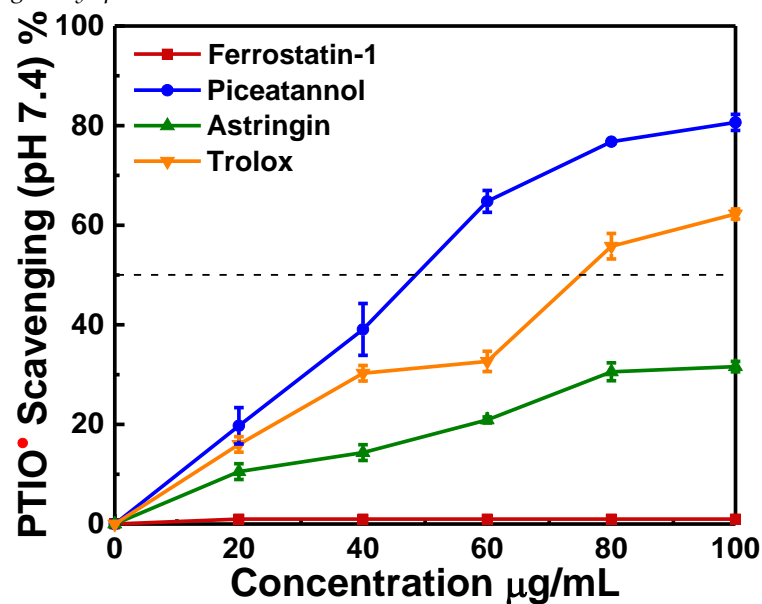


Fig. S1.2 The dose response curves of Ferrostatin-1, piceatannol, astringin, and Trolox in PTIO•-scavenging (pH 7.4) assay.

Tab. S1.2 The comparison of IC<sub>50</sub> values of Ferrostatin-1, piceatannol, astringin, and Trolox in PTIO•-scavenging (pH 7.4) assay.

	Ferrostatin-1	Piceatannol	Astringin	Trolox
µg/mL	>10000	53.7±1.7	149.9±5.3	77.8±1.4
<u>µmol/L</u>	<u>&gt;10000</u>	<u>219.8±7.0<sup>a</sup></u>	<u>368.8±12.9<sup>b</sup></u>	<u>310.7±5.8<sup>b</sup></u>

The IC<sub>50</sub> value was defined as the final concentration of 50% scavenging power, calculated by linear regression analysis, and expressed as the mean ± SD (n = 3). The linear regression was analyzed by the Origin 2017 professional software. The IC<sub>50</sub> values with different superscripts (<sup>a</sup> or <sup>b</sup>) in the same row, are significantly different ( $p < 0.05$ ). Trolox is the positive control.

#### 4. $Fe^{3+}$ -reducing assay

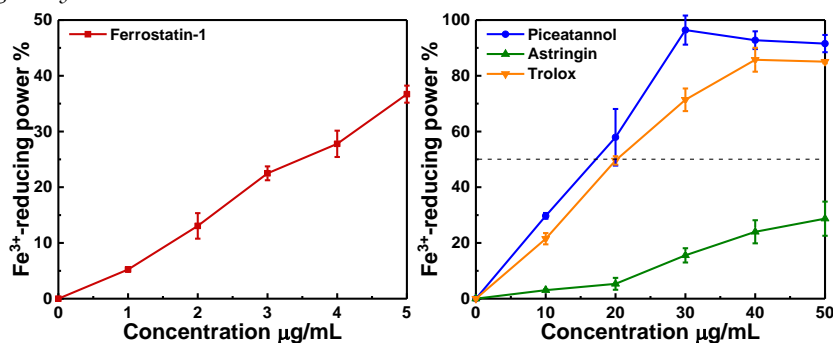


Fig. S1.2 The dose response curves of Ferrostatin-1, piceatannol, astringin, and Trolox in  $Fe^{3+}$ -reducing assay.

Tab. S1.2 The comparison of  $IC_{50}$  values of Ferrostatin-1, piceatannol, astringin, and Trolox in  $Fe^{3+}$ -reducing assay.

	Ferrostatin-1	Piceatannol	Astringin	Trolox
$\mu\text{g/mL}$	$6.7 \pm 0.1$	$16.7 \pm 1.3$	$72.7 \pm 1.1$	$22.2 \pm 0.4$
<u><math>\mu\text{mol/L}</math></u>	<u><math>25.6 \pm 0.3^a</math></u>	<u><math>68.2 \pm 5.3^b</math></u>	<u><math>178.9 \pm 2.8^c</math></u>	<u><math>88.8 \pm 1.8^b</math></u>

The  $IC_{50}$  value was defined as the final concentration of 50% reducing power, calculated by linear regression analysis, and expressed as the mean  $\pm$  SD ( $n = 3$ ). The linear regression was analyzed by the Origin 2017 professional software. The  $IC_{50}$  values with different superscripts (<sup>a</sup>, <sup>b</sup>, or <sup>c</sup>) in the same row, are significantly different ( $p < 0.05$ ). Trolox is the positive control.