Supporting Information

Figure S1. LC/MS analysis of 4'-OMe-resveratrol oxidation products. Extensively dialyzed COX-1 (10 μM) was mixed with 20 μM FePPIX and 500 μM 4'-OMe-resveratrol (**2**) in 100 mM Tris-HCl (pH 8.0). The 500 μL reactions were initiated with 1 mM H_2O_2 and incubated for 10 min at 25ºC. The samples were immediately frozen on dry ice and stored at -80ºC prior to LC/MS analysis. Aliquots (30 μL containing 21.6 μg of COX-1 and 15 nmoles of 4'-OMe-resveratrol) were injected onto a Phenomenex Spherisorb C_{18} column (5 μm; 4.6 x 250 mm) and analyzed in system 2 with in-line MS analysis. (A) TIC chromatogram (*m/z* 100-800). (B) TIC for MS^2 analysis of *m/z* 481. (C) MS^2 spectrum of 4'-OMe-resveratrol dimer.

Figure S2. LC/MS analysis of 3,5-di-OMe-resveratrol oxidation products. Extensively dialyzed COX-1 (10 μM) was mixed with 20 μM FePPIX and 500 μM 3,5-di-OMe-resveratrol (**3**) in 100 mM Tris-HCl (pH 8.0). The 500 μL reactions were initiated with 1 mM H_2O_2 and incubated for 10 min at 25ºC. The samples were immediately frozen on dry ice and stored at -80ºC prior to LC/MS analysis. Aliquots (30 μL containing 21.6 μg of COX-1 and 15 nmoles of 3,5-di-OMe-resveratrol) were injected onto a Phenomenex Spherisorb C_{18} column (5 μm; 4.6 x 250 mm) and analyzed in system 2 with in-line MS analysis. (A) TIC chromatogram (*m/z* 100-800). (B) TIC for MS^2 analysis of *m/z* 509. (C) MS^2 spectrum of 3,5-di-OMe-resveratrol dimer.

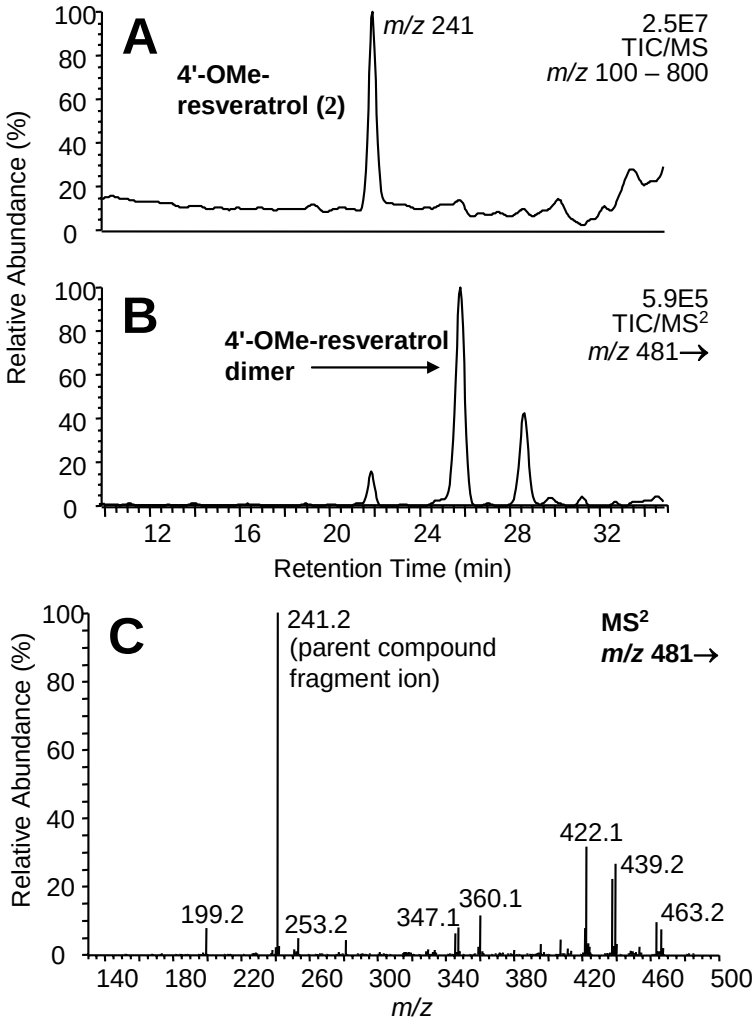
A
4'-OMe-resveratrol (2)
m/z 241
2.5E7
TIC/MS
m/z 100 – 800
B
4'-OMe-resveratrol dimer
5.9E5
TIC/MS2
m/z 481→
Relative Abundance (%)
Retention Time (min)
C
241.2
(parent compound fragment ion)
MS2
m/z 481→
199.2
253.2
347.1
360.1
422.1
439.2
463.2
m/z

Figure S1

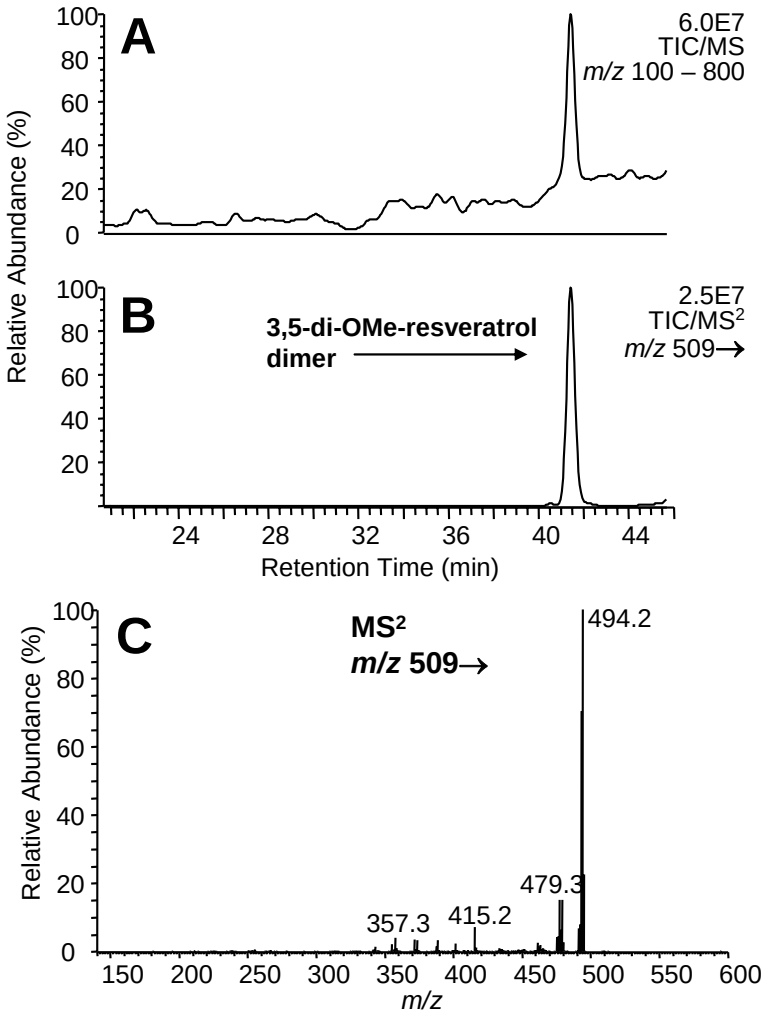
A
6.0E7
TIC/MS
m/z 100 – 800
B
3,5-di-OMe-resveratrol
dimer
2.5E7
TIC/MS2
m/z 509→
Relative Abundance (%)
Retention Time (min)
C
MS2
m/z 509→
494.2
479.3
415.2
357.3
m/z

Figure S2