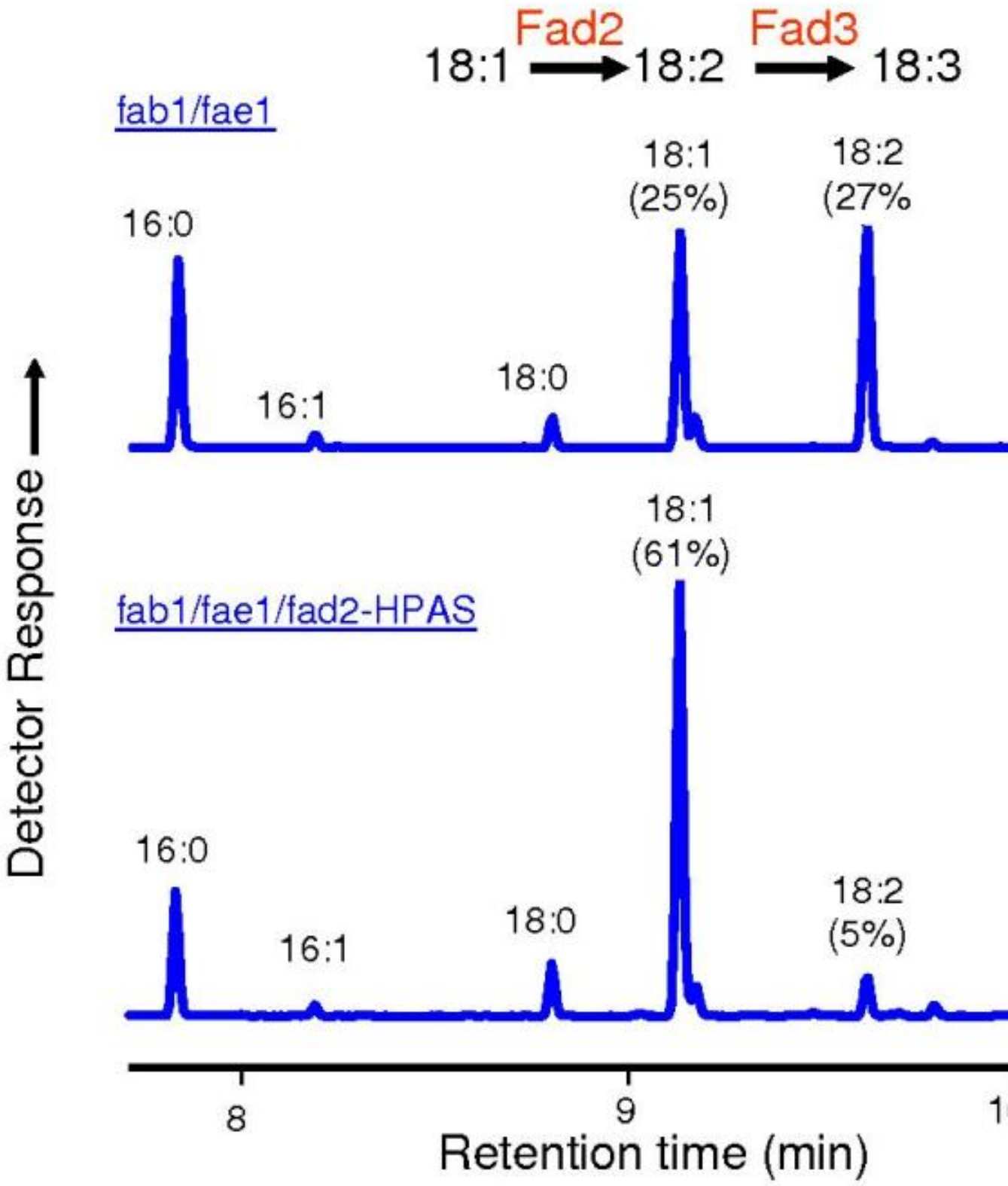
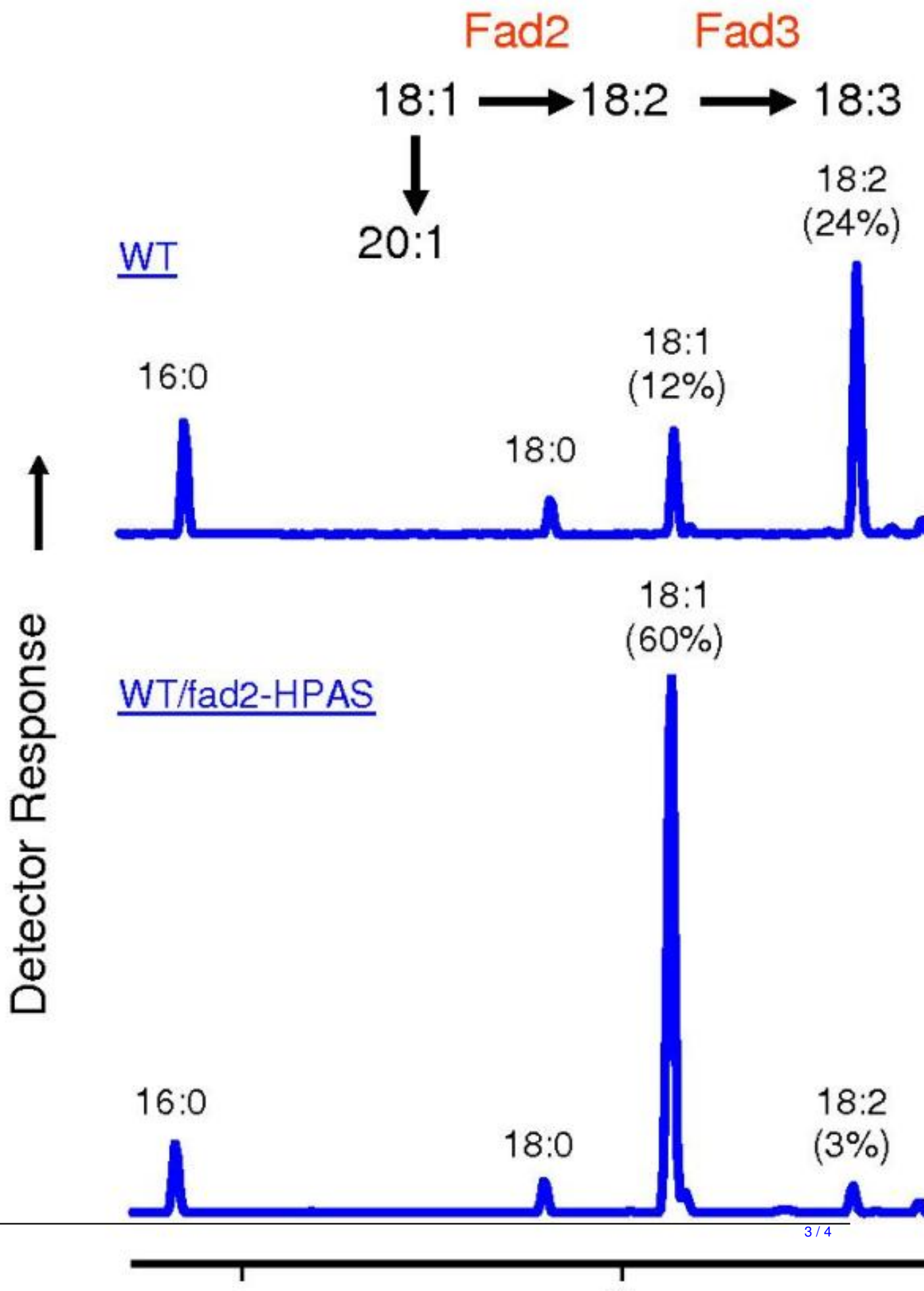

Fad2
Fad3
18:1
18:2
18:3
fab1/fae1
16:0
16:1
18:0
18:1
(25%)
18:2
(27%
fab1/fae1/fad2-HPAS
16:0
16:1
18:0
18:1
(61%)
18:2
(5%)
Detector Response
8
9
Retention time (min)

Gas chromatograph-mass spectrometer analysis fatty acid of single seed of Fad2-Hairpin antisense (Bottom) and control (top)

Fad2-Hairpin antisense blocked fad2 enzyme which support for fatty acid 18:1 (18 carbons and one double bond at 9 Carbon position) to fatty acid 18:2 (18 carbons and two double bond) reaction. So, 18:2 fatty acid products reduced and accumulated of 18:1 fatty acid products (25% to 61%). Fatty acid contain 18:3 use 18:2 fatty acid as a substrate, although fad2-hairpin antisense is not effect to Fad3 enzyme but once 18:2 substrate reduce cause reduction of 18:3 fatty acid. This experiment used fab1/fae1 seed.


Fad2
Fad3
18:1
18:2
18:3
20:1
WT
18:2
(24%)
16:0
18:1
(12%)
18:0
Detector Response
WT/fad2-HPAS
18:1
(60%)
16:0
18:0
18:2
(3%)

In an experiment with Wild type (WT) seed, every thing similarly abow experiment except 20:1 fatty acid. This fatty acid is elongated from 18:1by fae1 enzyme, so it is still there.