

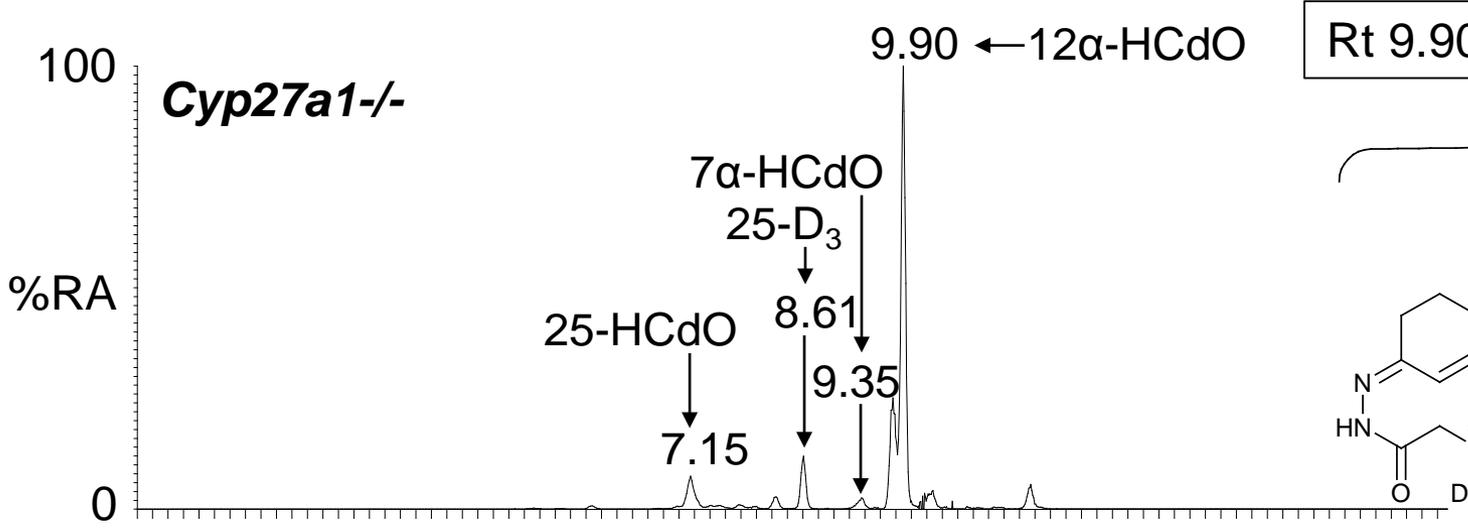




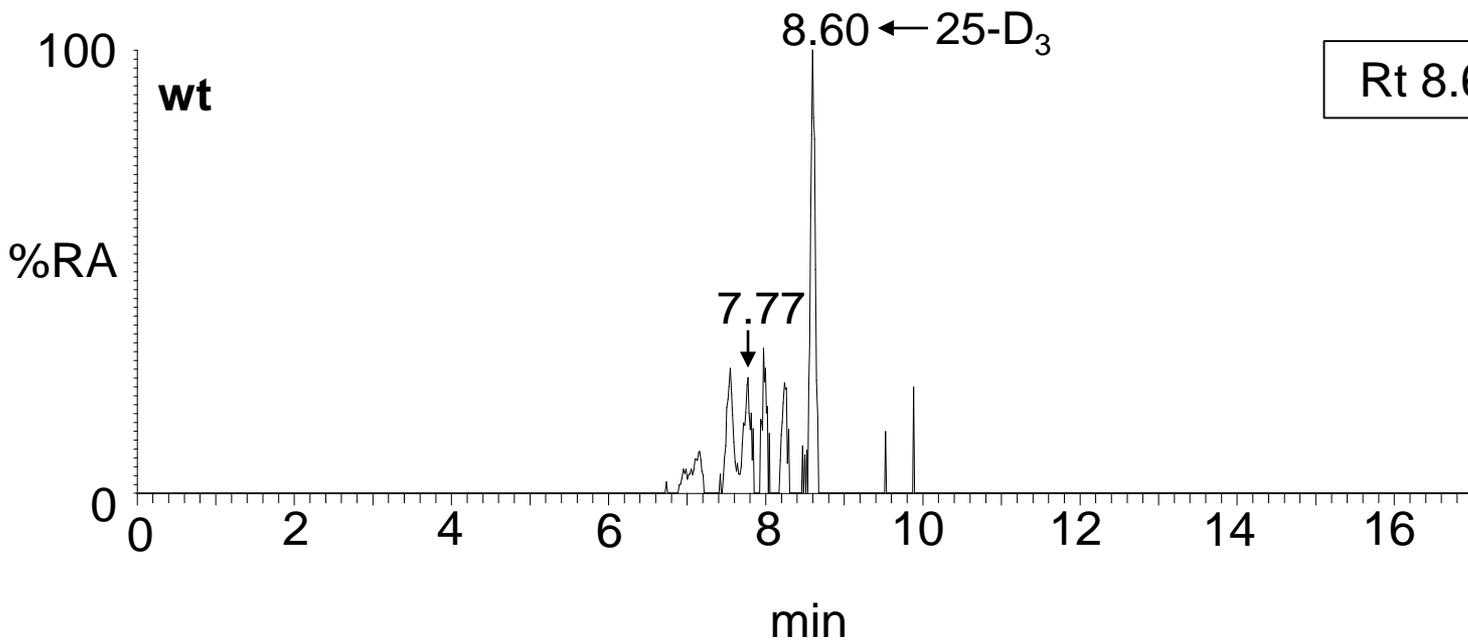
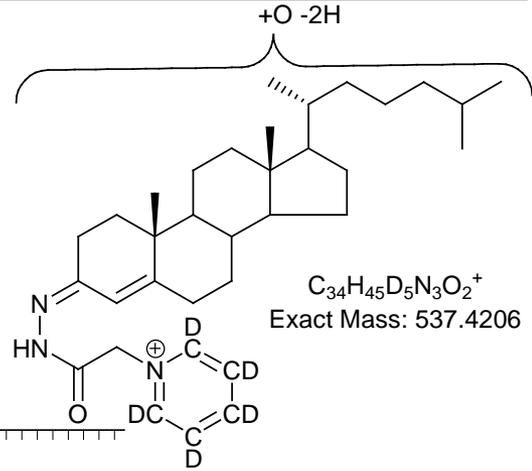


# S4A

RIC: 537.4206 ± 10 ppm



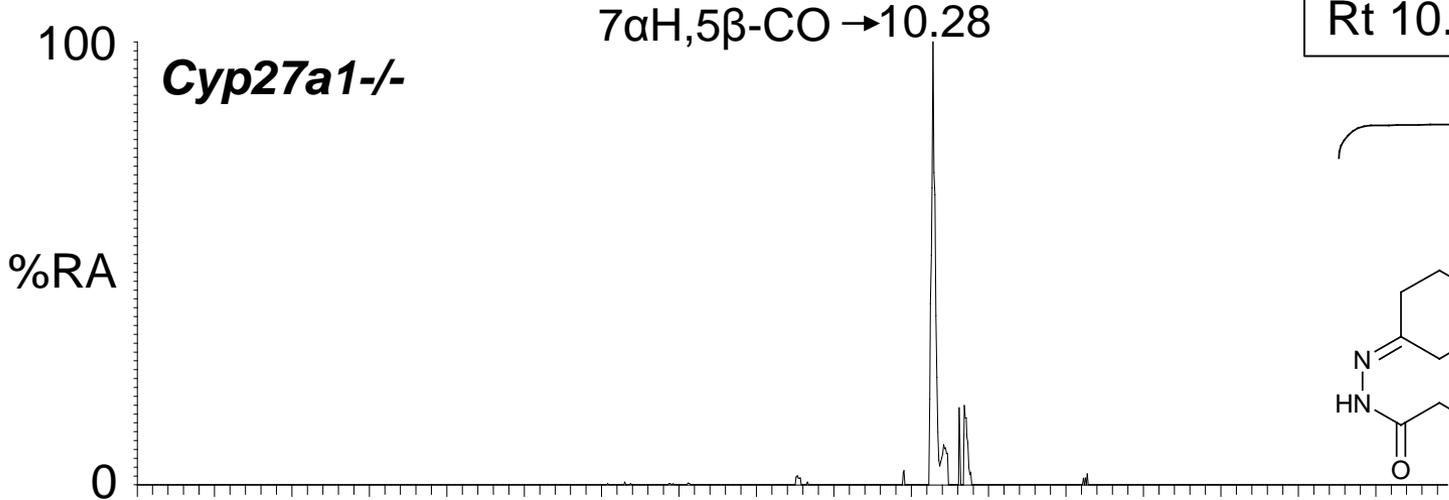
Rt 9.90 min, 101 ng/mL



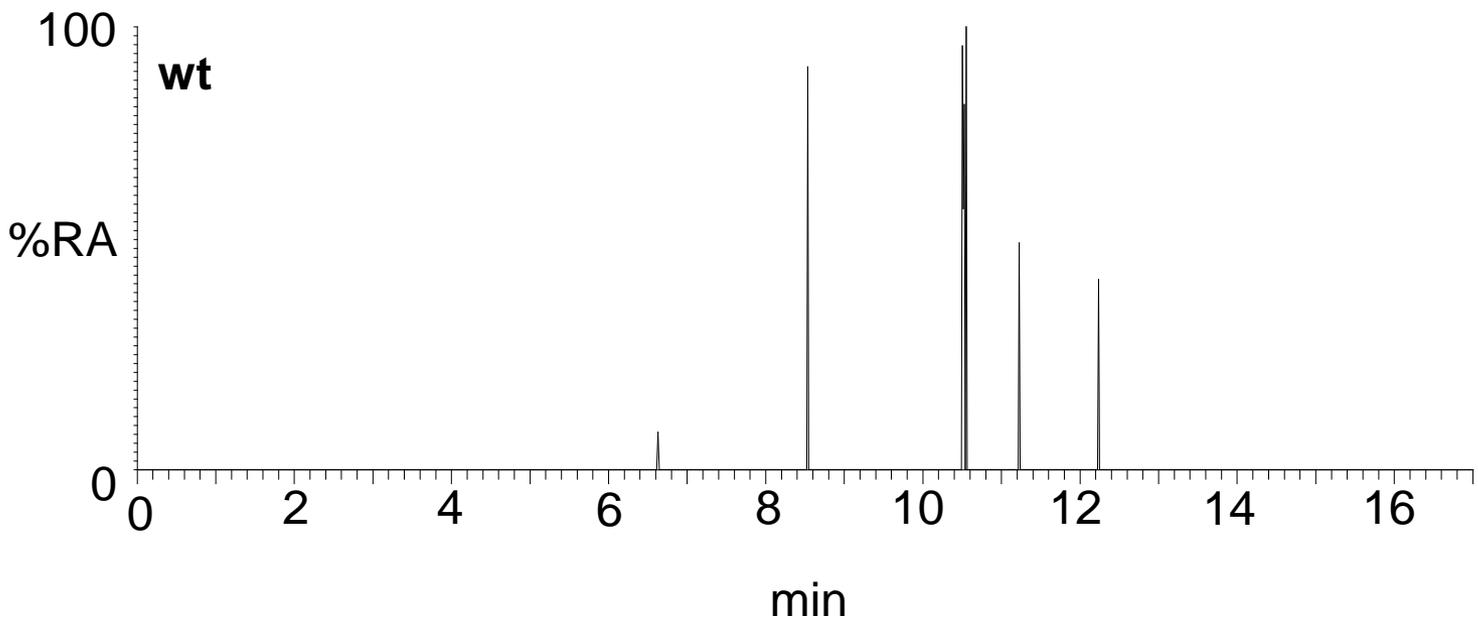
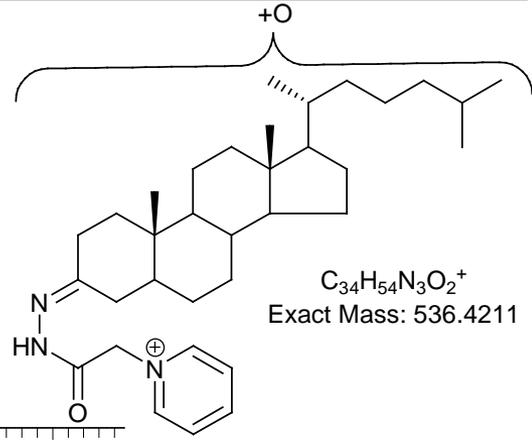
Rt 8.60 min, 3 ng/mL

# S4B

RIC: 536.4211 ± 10 ppm



Rt 10.28 min, 10 ng/mL

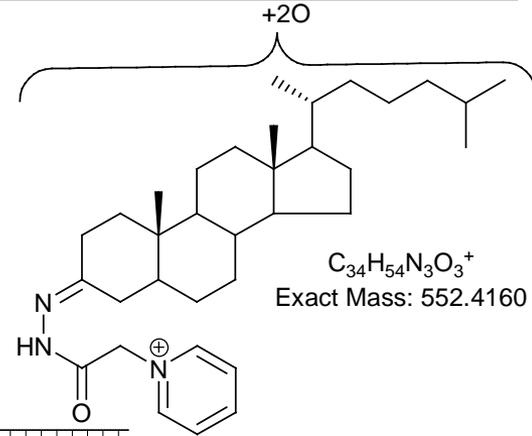
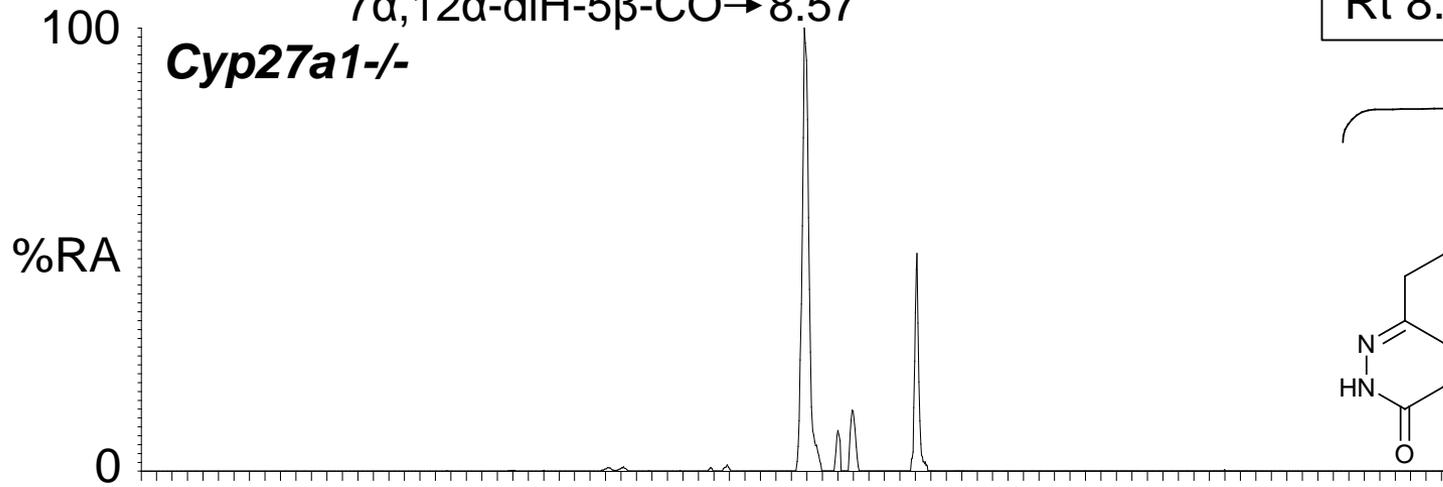


# S4C

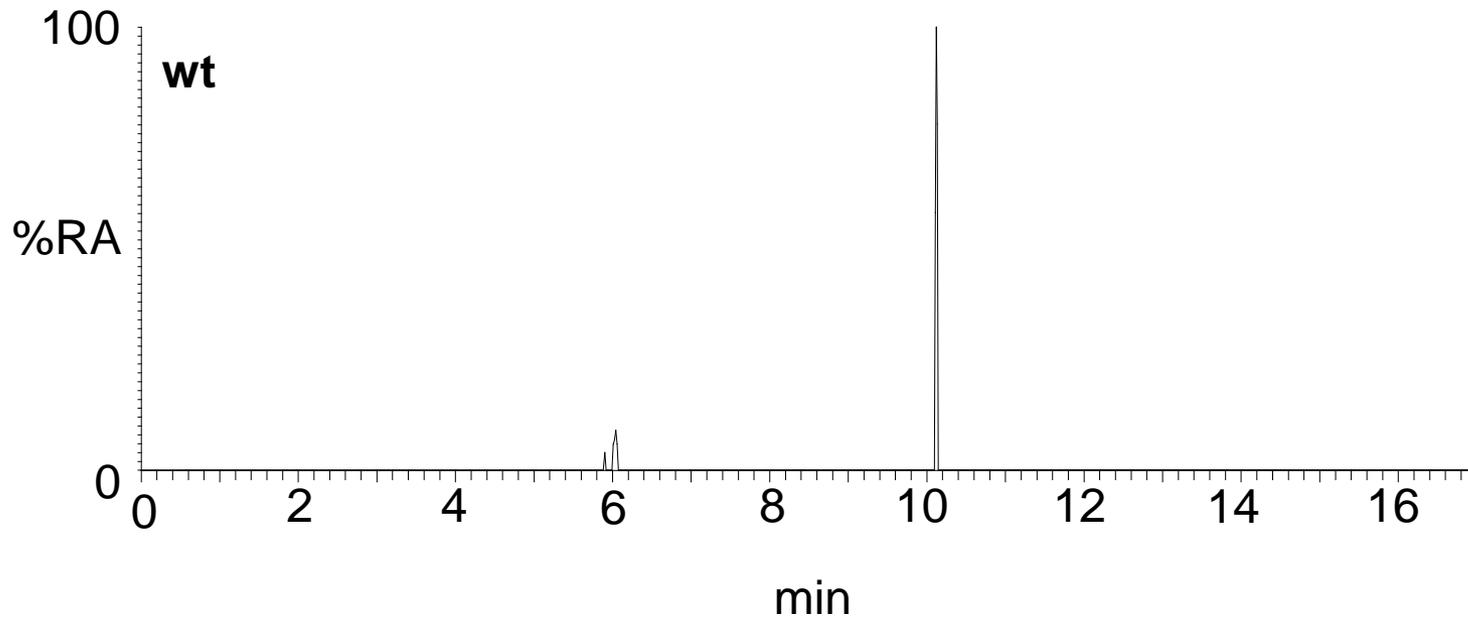
RIC: 552.4160 ± 10 ppm

7 $\alpha$ ,12 $\alpha$ -diH-5 $\beta$ -CO → 8.57  
**Cyp27a1<sup>-/-</sup>**

Rt 8.57 min, 35 ng/mL

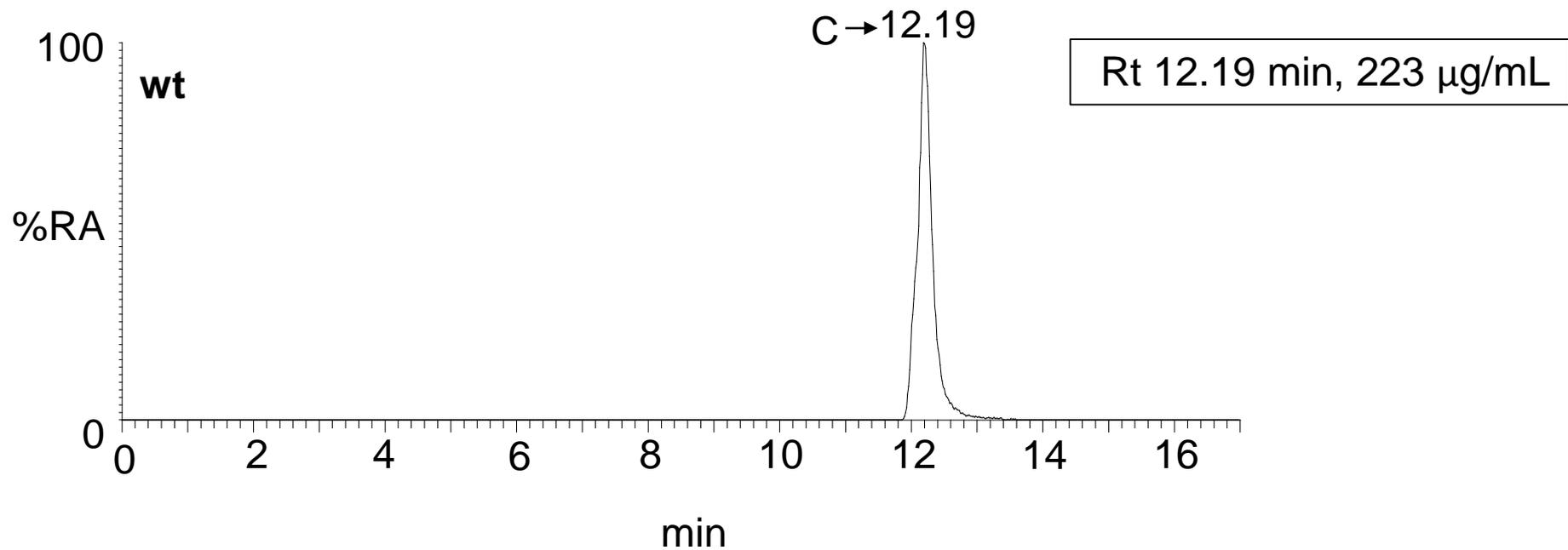
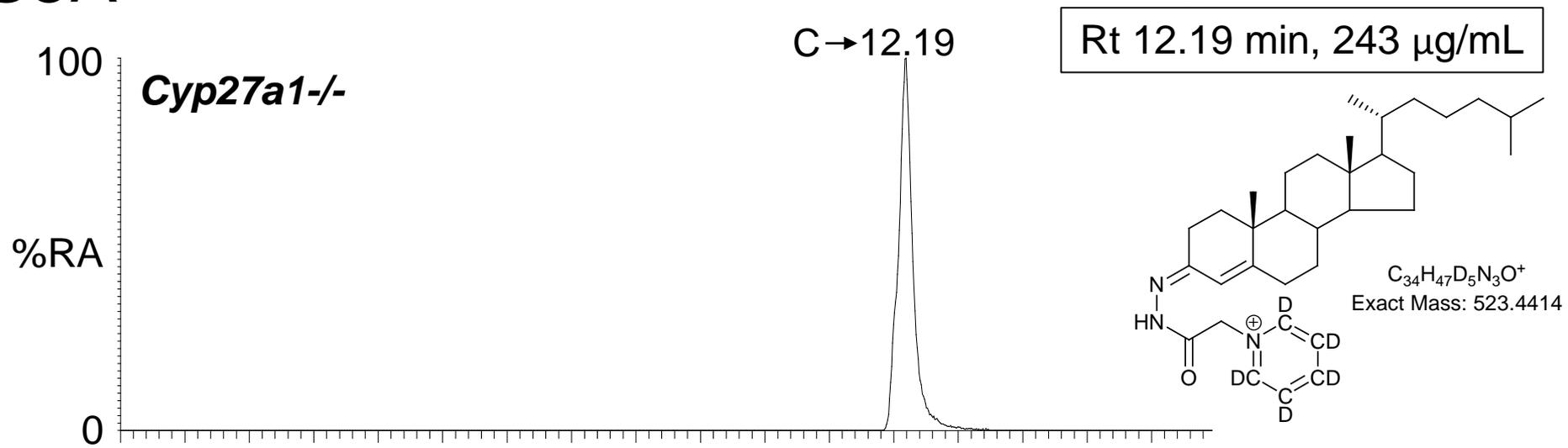


**wt**



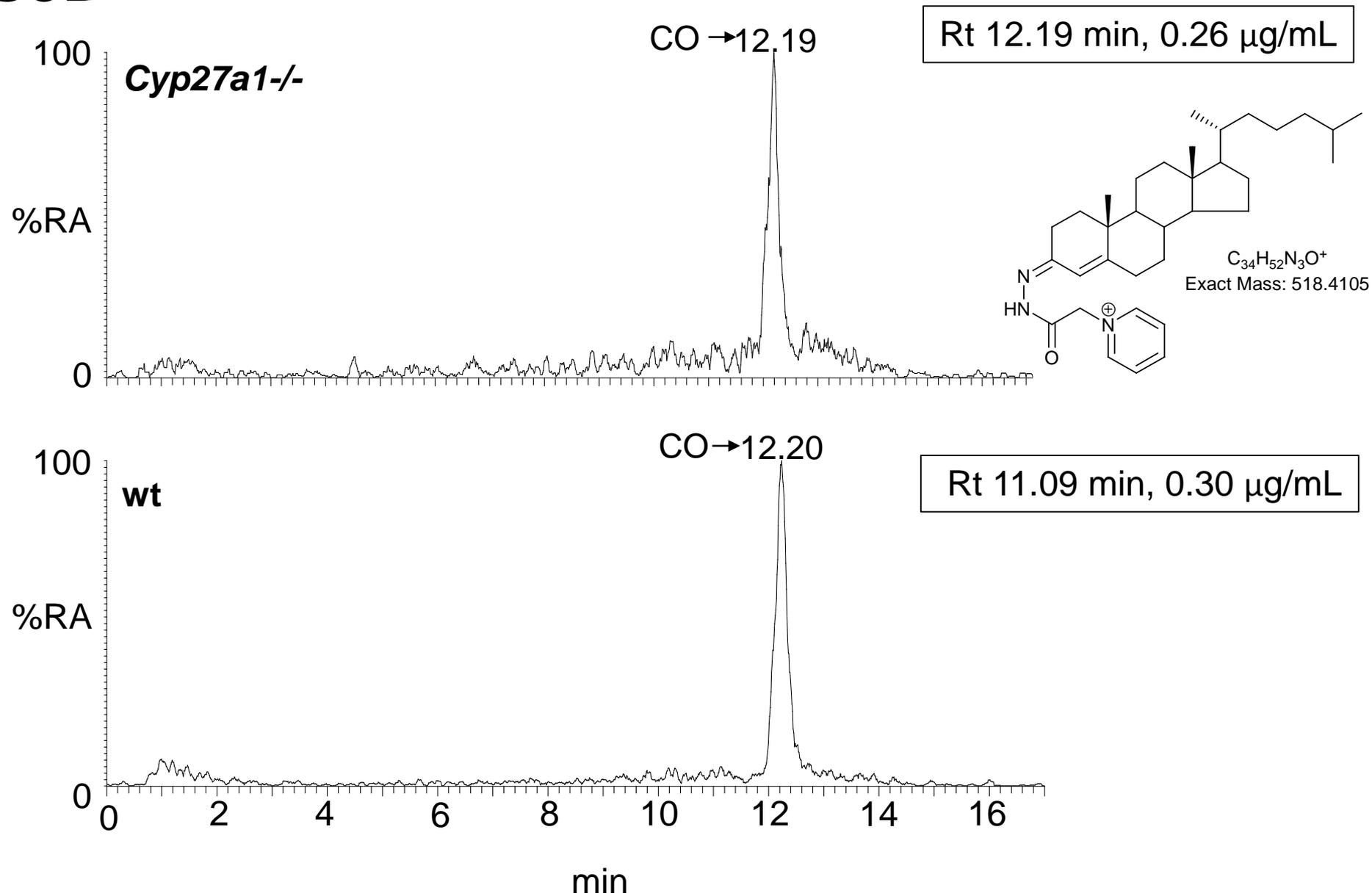
# S5A

RIC: 523.4414 ± 10 ppm



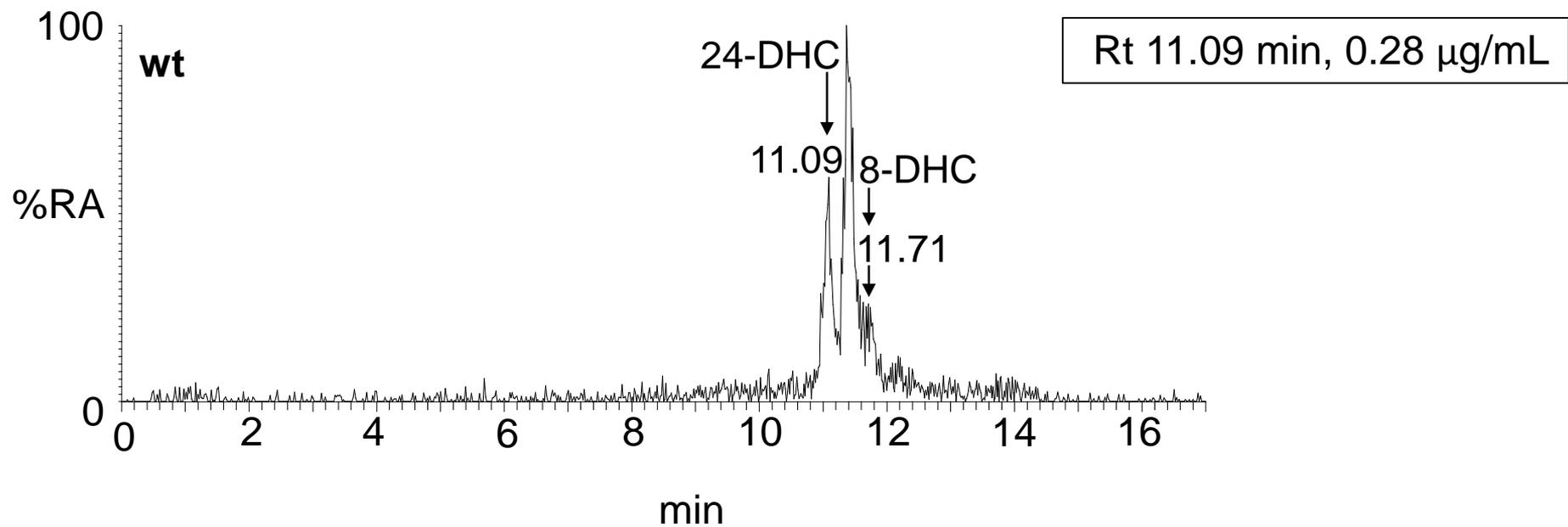
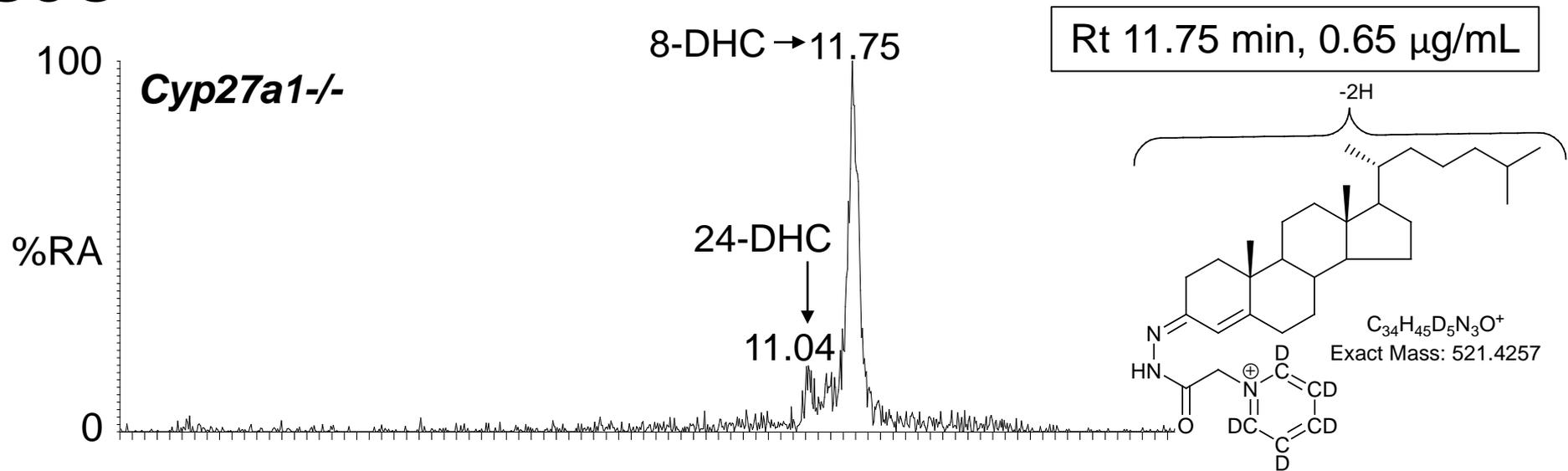
# S5B

## MS<sup>3</sup>: 518→439→



# S5C

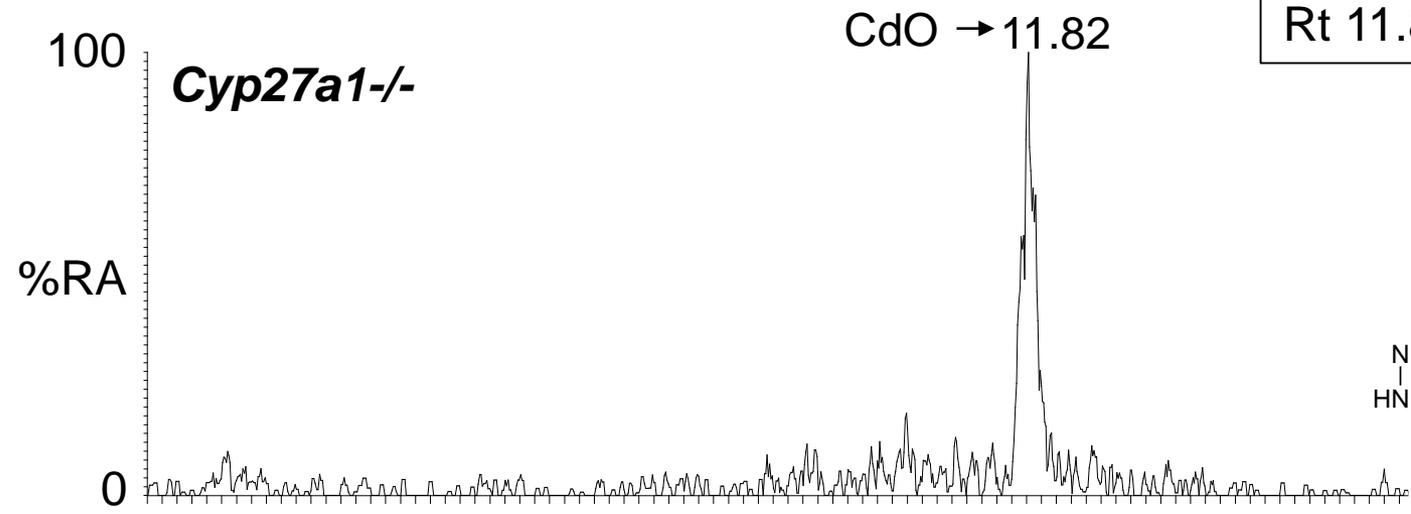
## MS<sup>3</sup>: 521→437→



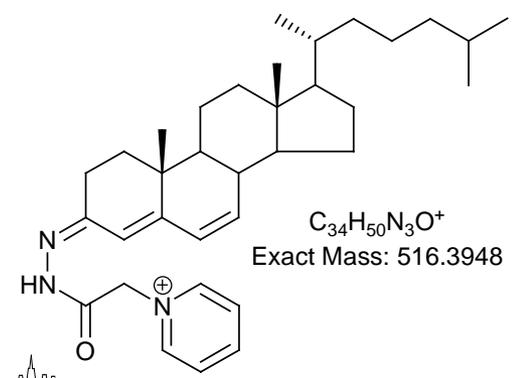
# S5D

## MS<sup>3</sup>: 516→437→

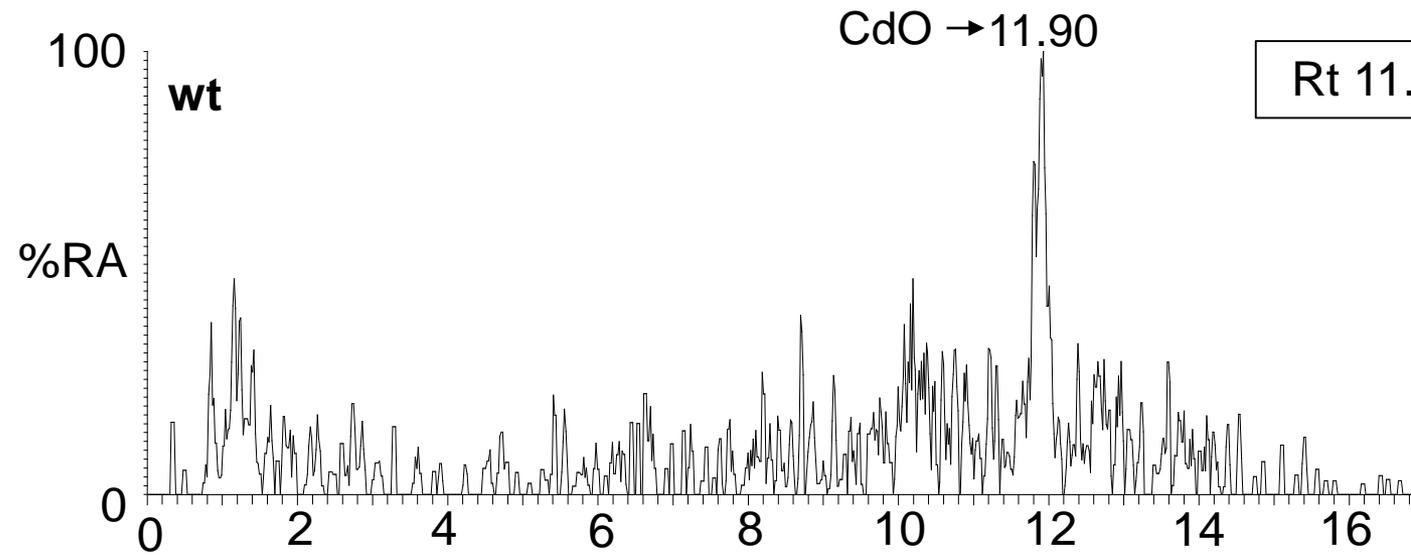
***Cyp27a1*<sup>-/-</sup>**



Rt 11.82 min, 0.21 μg/mL



**wt**



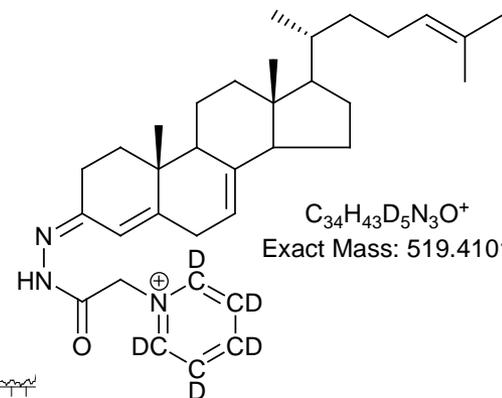
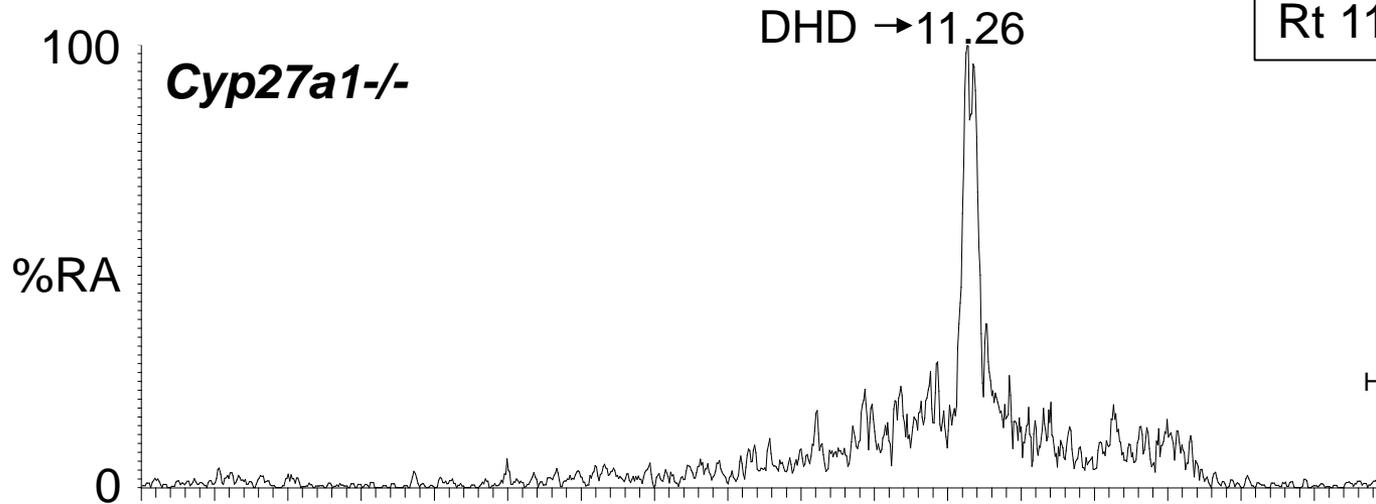
Rt 11.90 min, 0.07 μg/mL

min

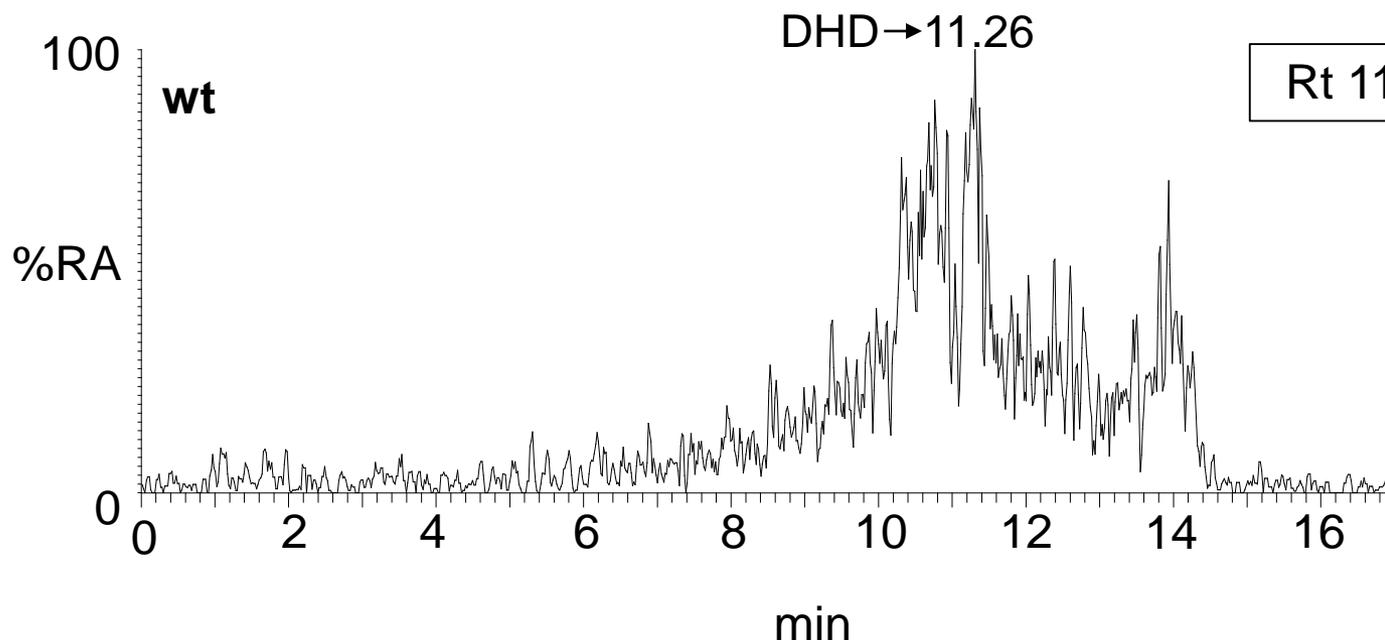
# S5E

## MS<sup>3</sup>: 519→435→

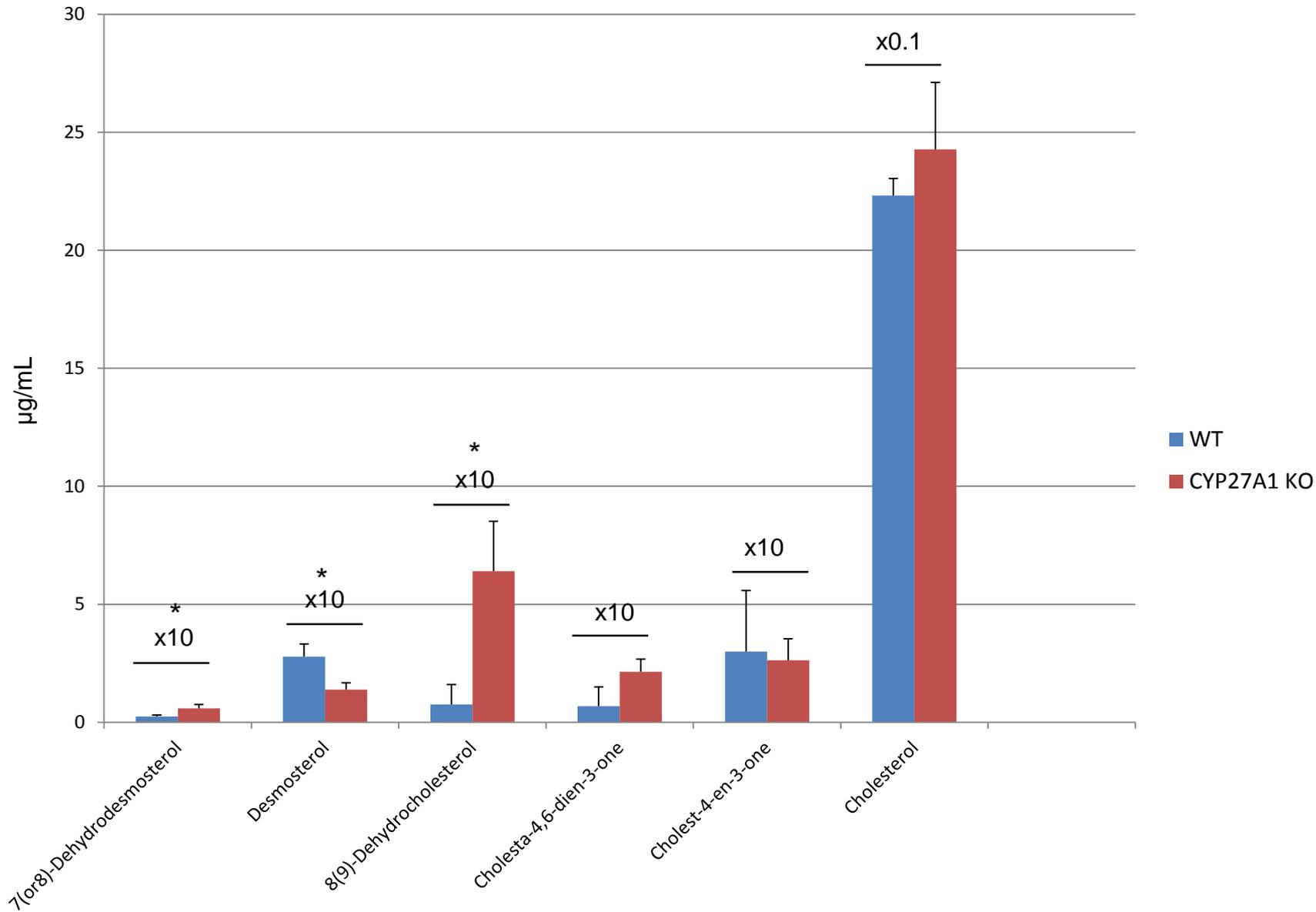
*Cyp27a1*<sup>-/-</sup>



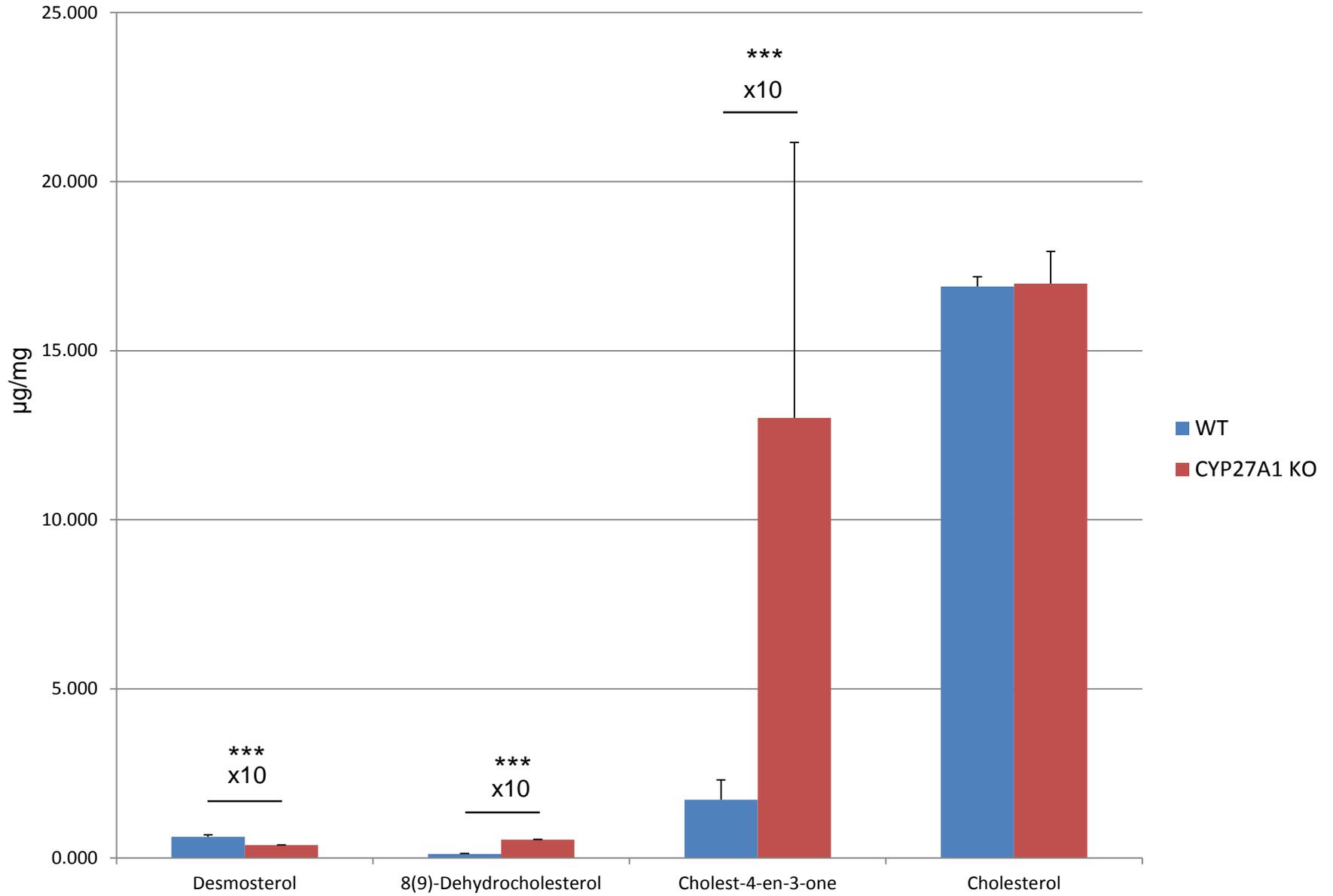
**wt**



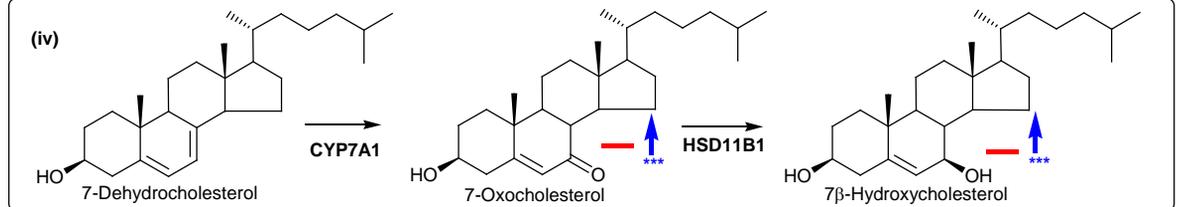
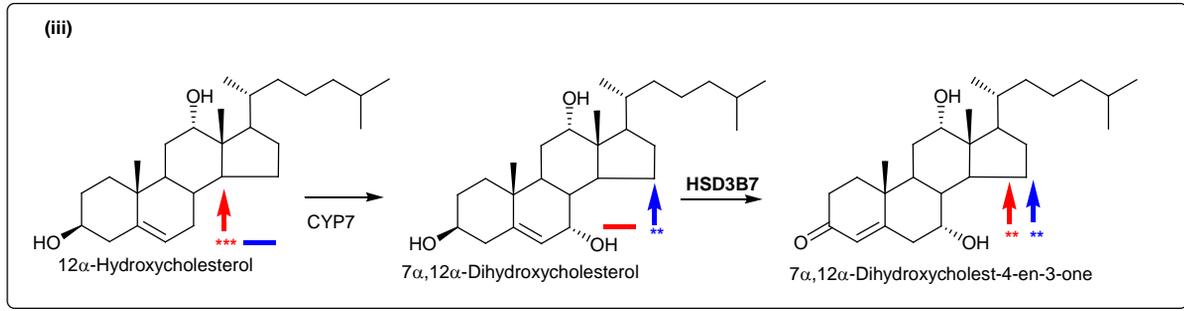
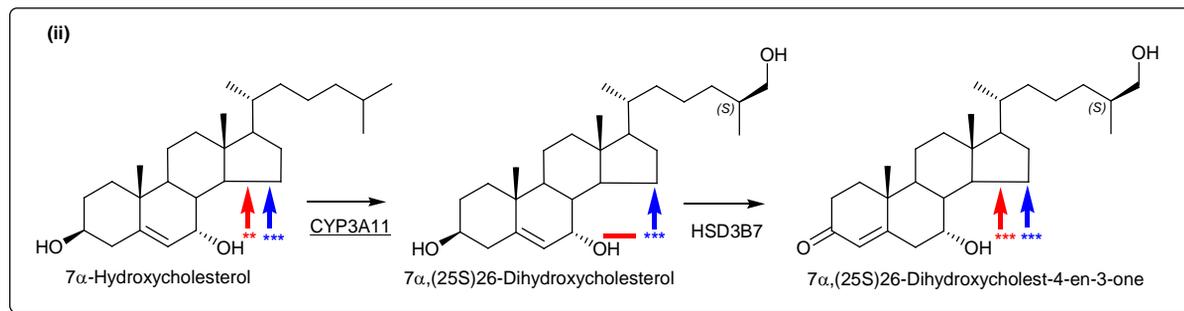
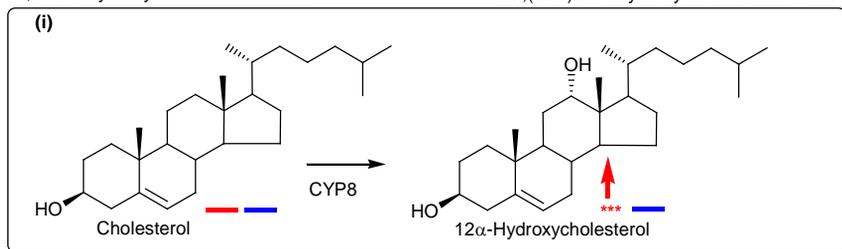
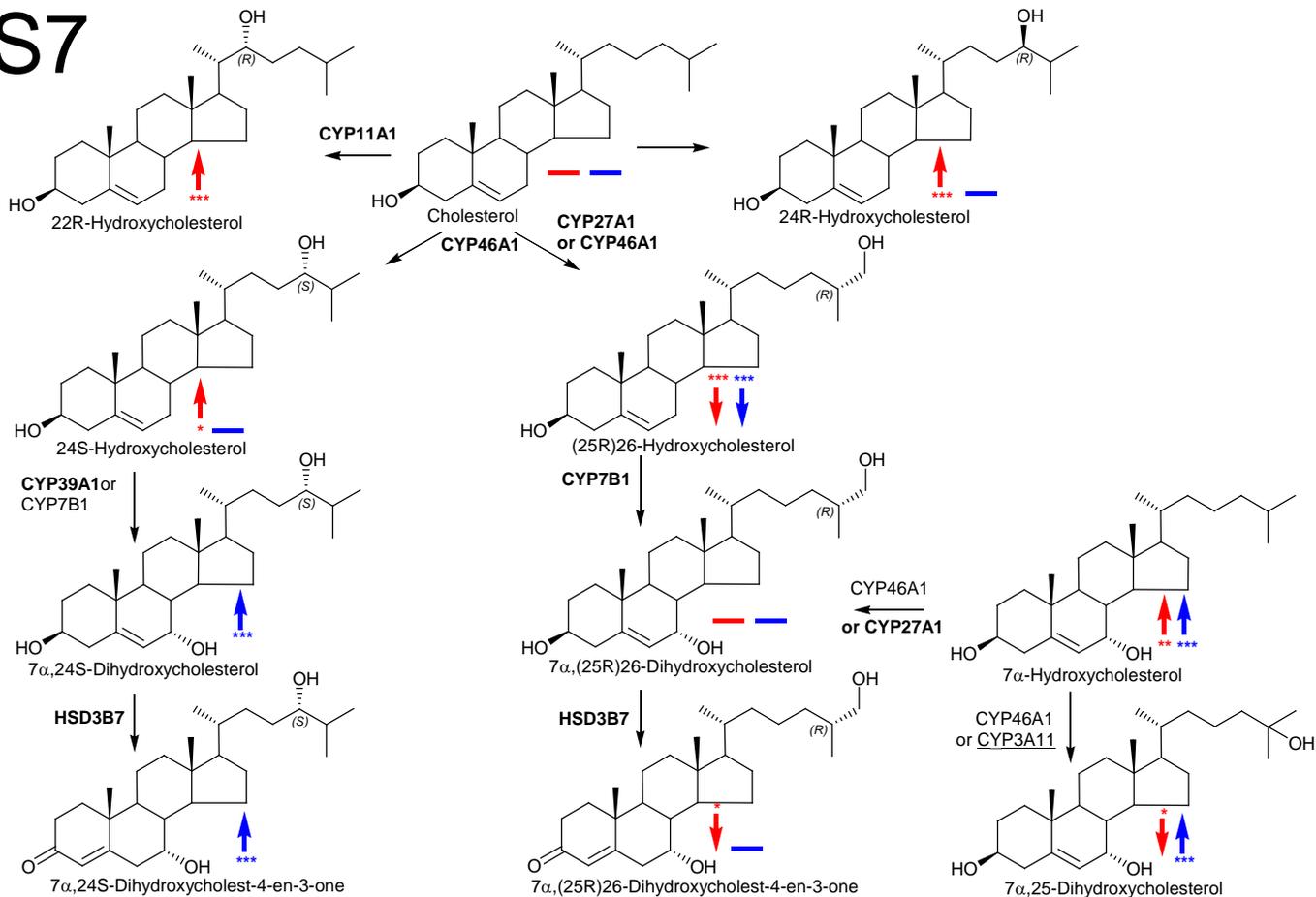
# S6A



# S6B

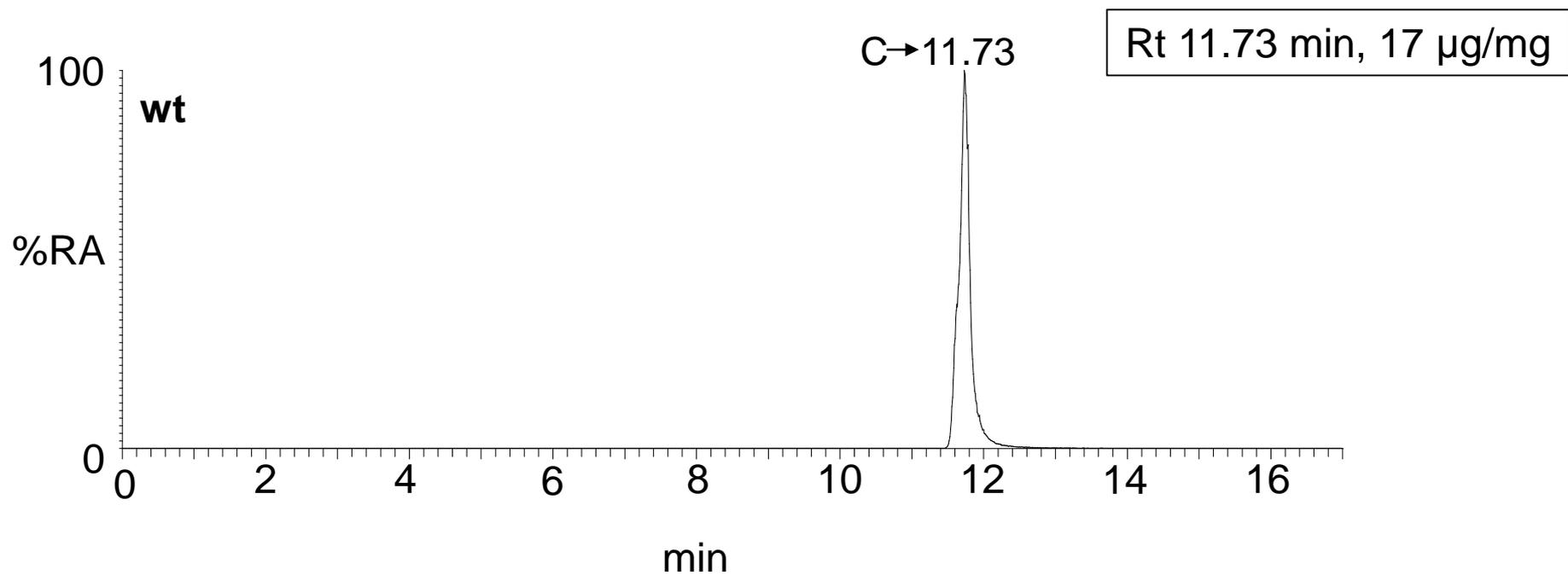
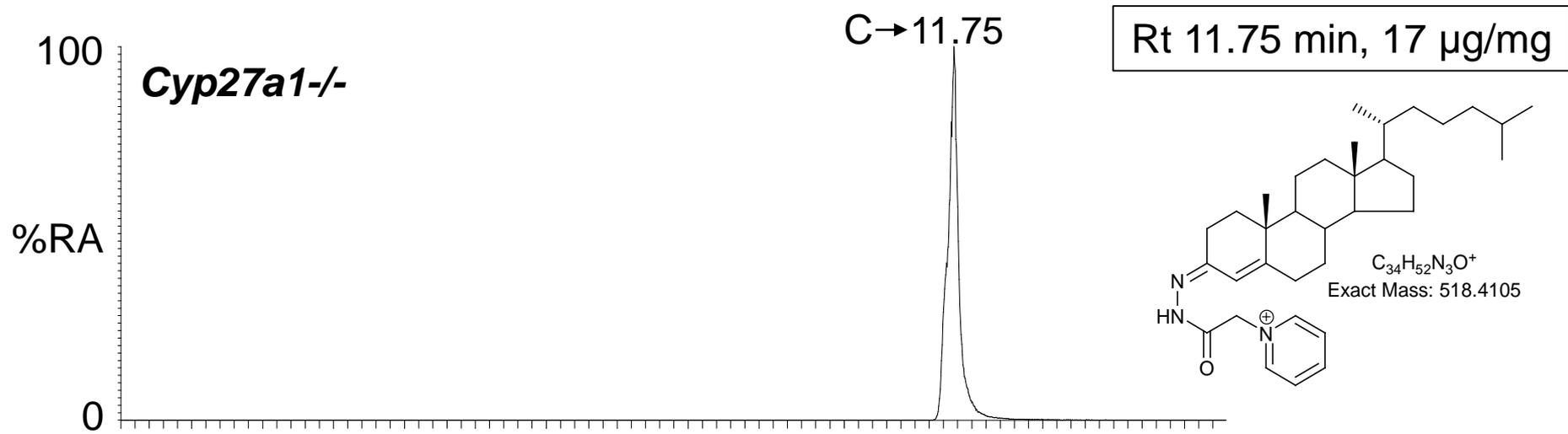


# S7



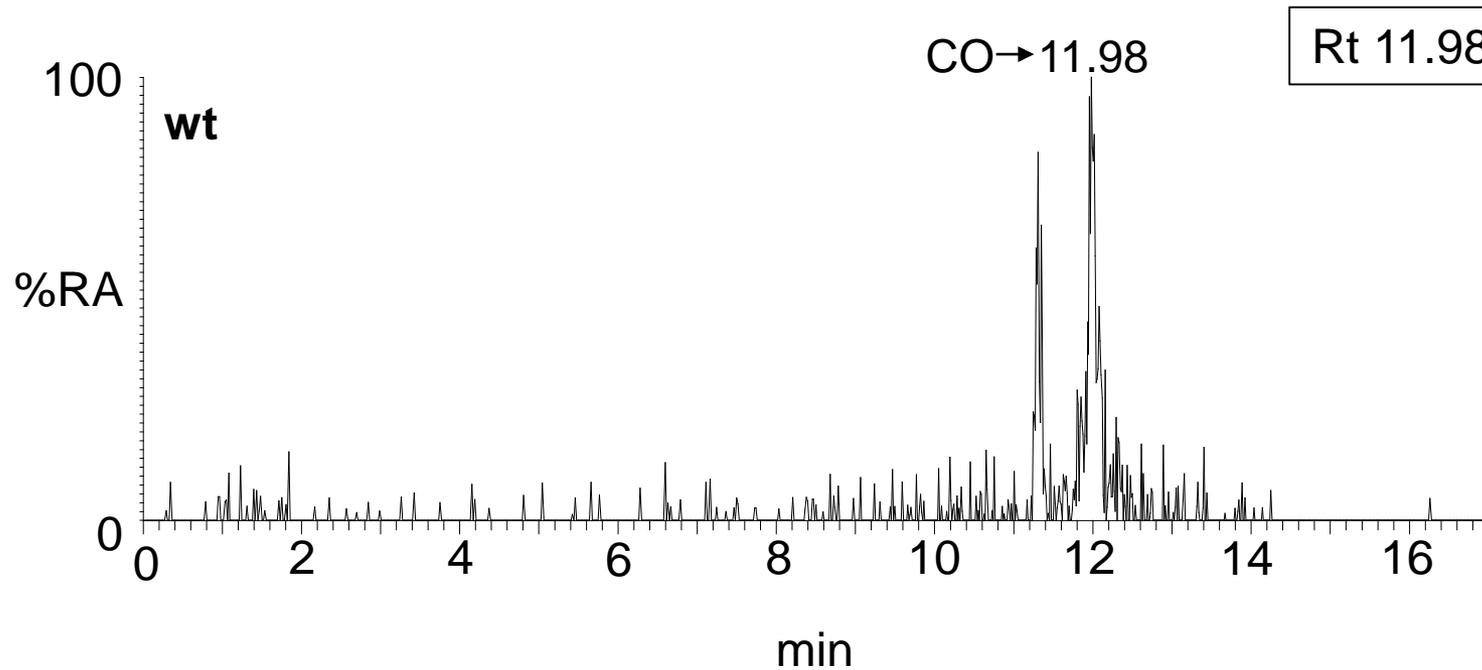
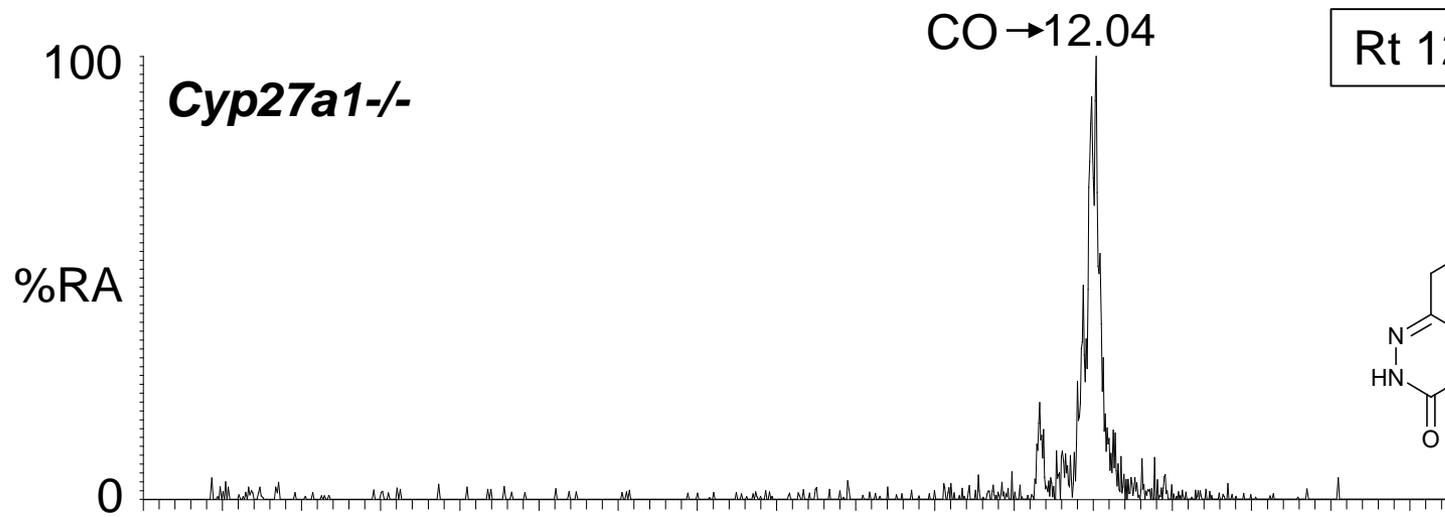
# S8A

RIC: 518.4105 ± 10 ppm



# S8B

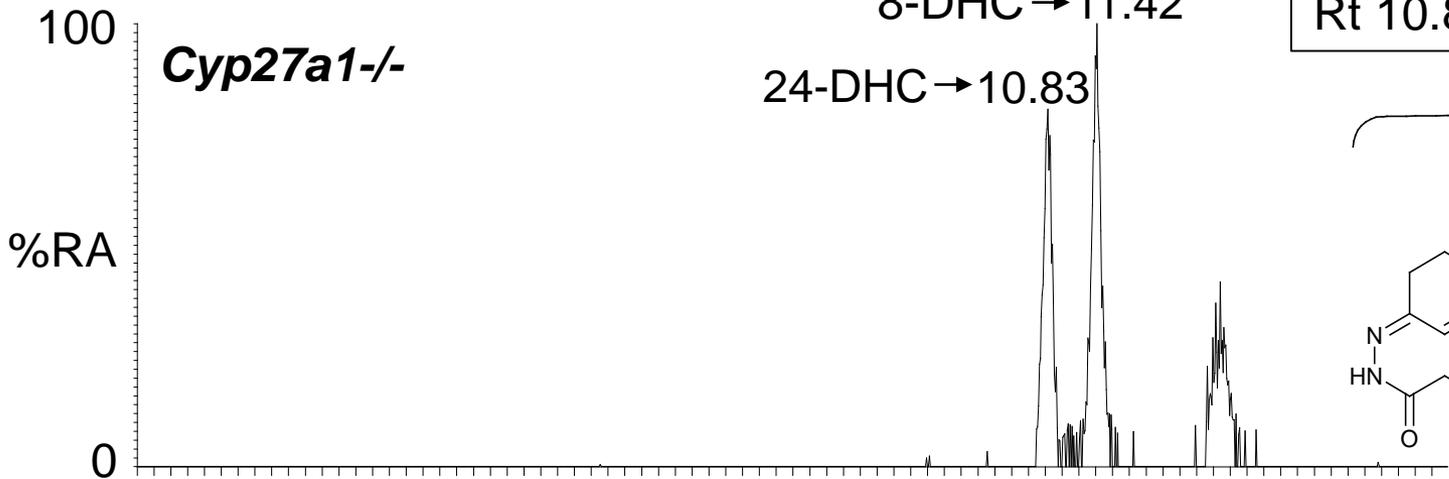
MS<sup>3</sup>: 518→439→



# S8C

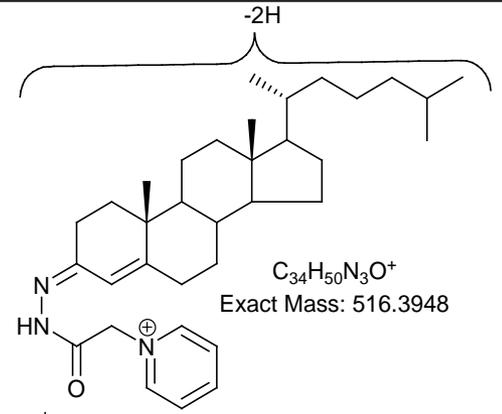
RIC: 516.3948 ± 10 ppm

*Cyp27a1*<sup>-/-</sup>

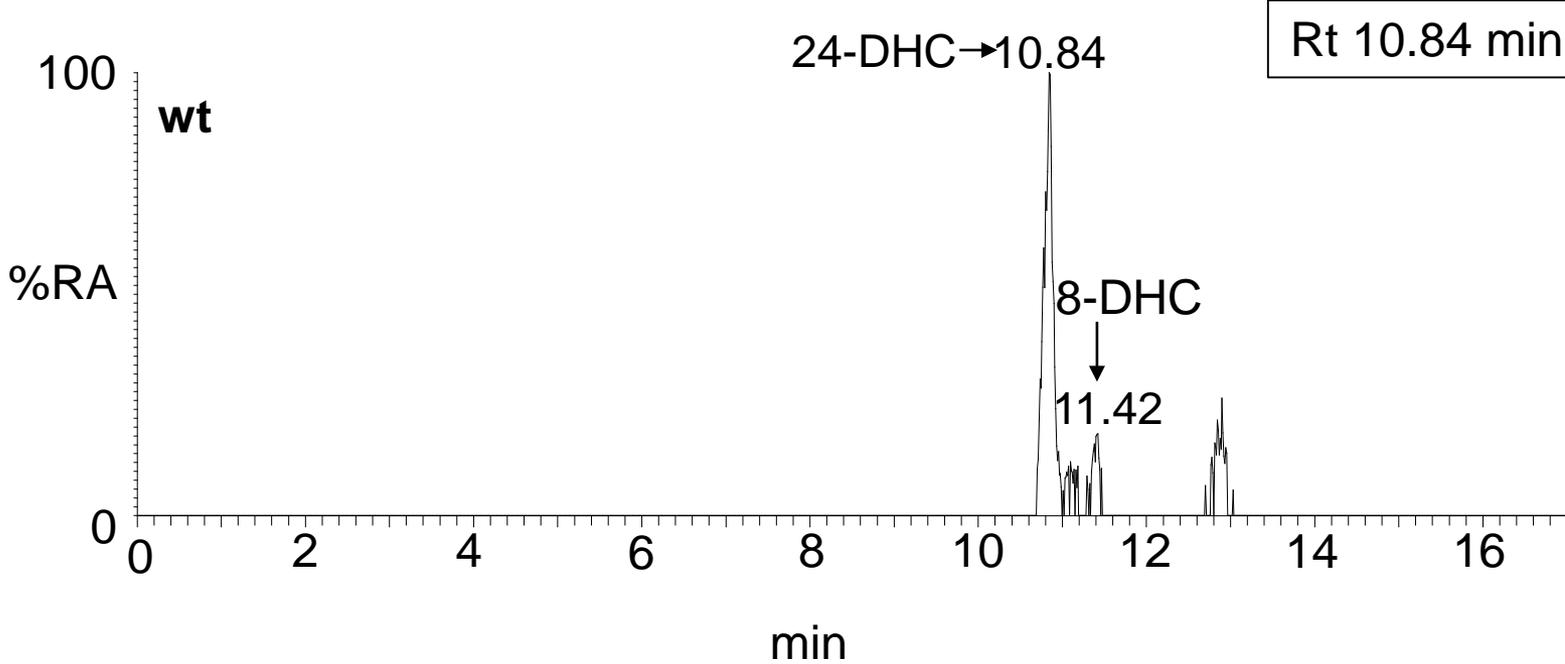


8-DHC → 11.42  
24-DHC → 10.83

Rt 10.83 min, 0.05 µg/mg



wt



24-DHC → 10.84

8-DHC  
↓  
11.42

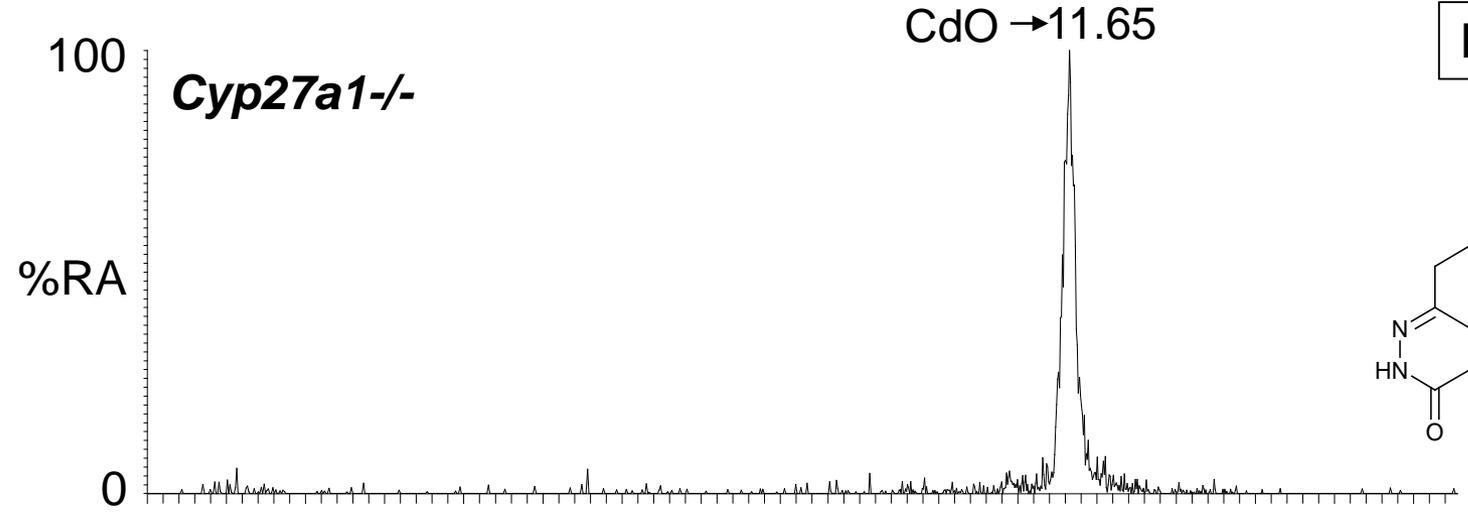
Rt 10.84 min, 0.05 µg/mg

min

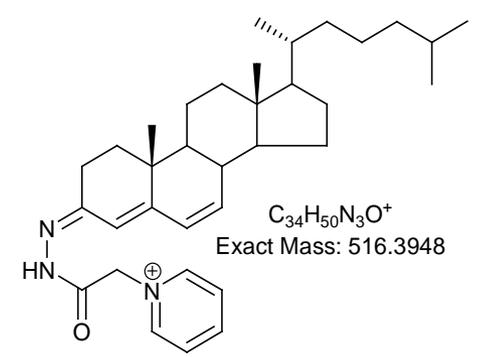
# S8D

MS<sup>3</sup>: 516→437→

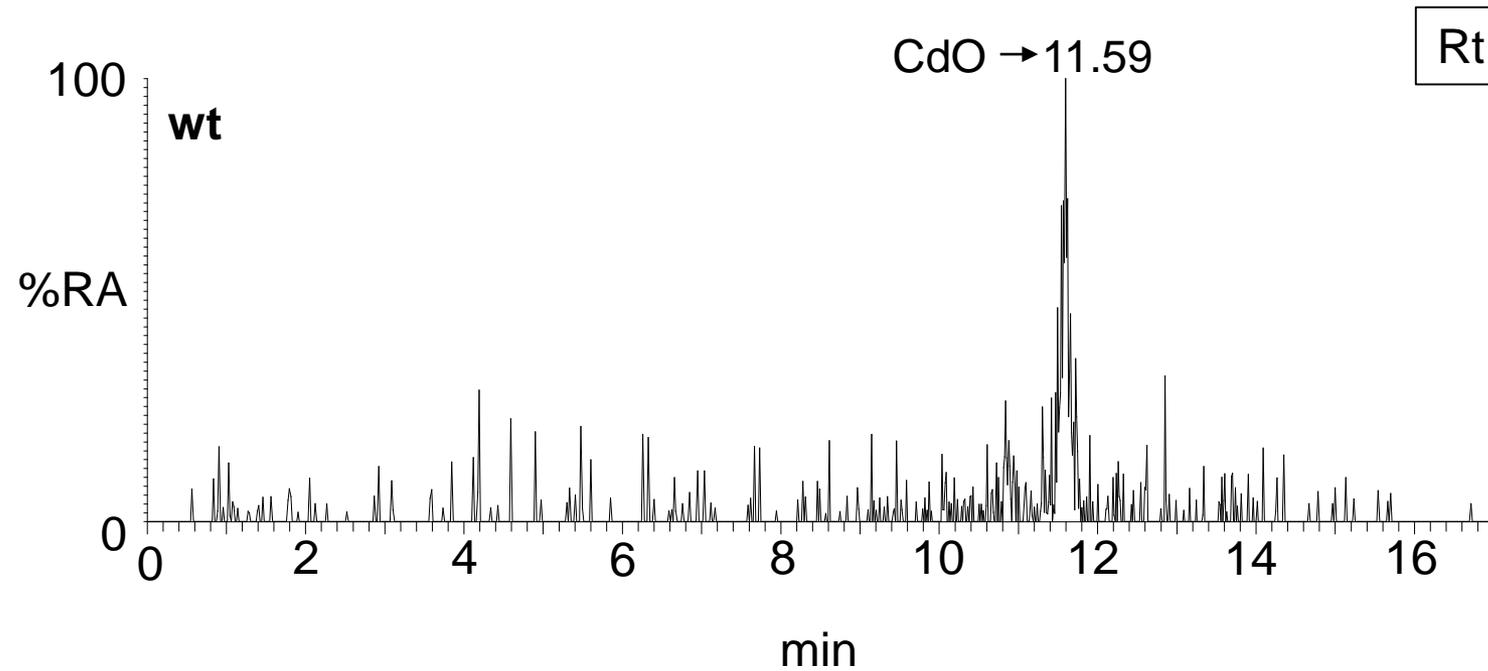
*Cyp27a1*<sup>-/-</sup>



Rt 11.65 min



wt



Rt 11.59 min