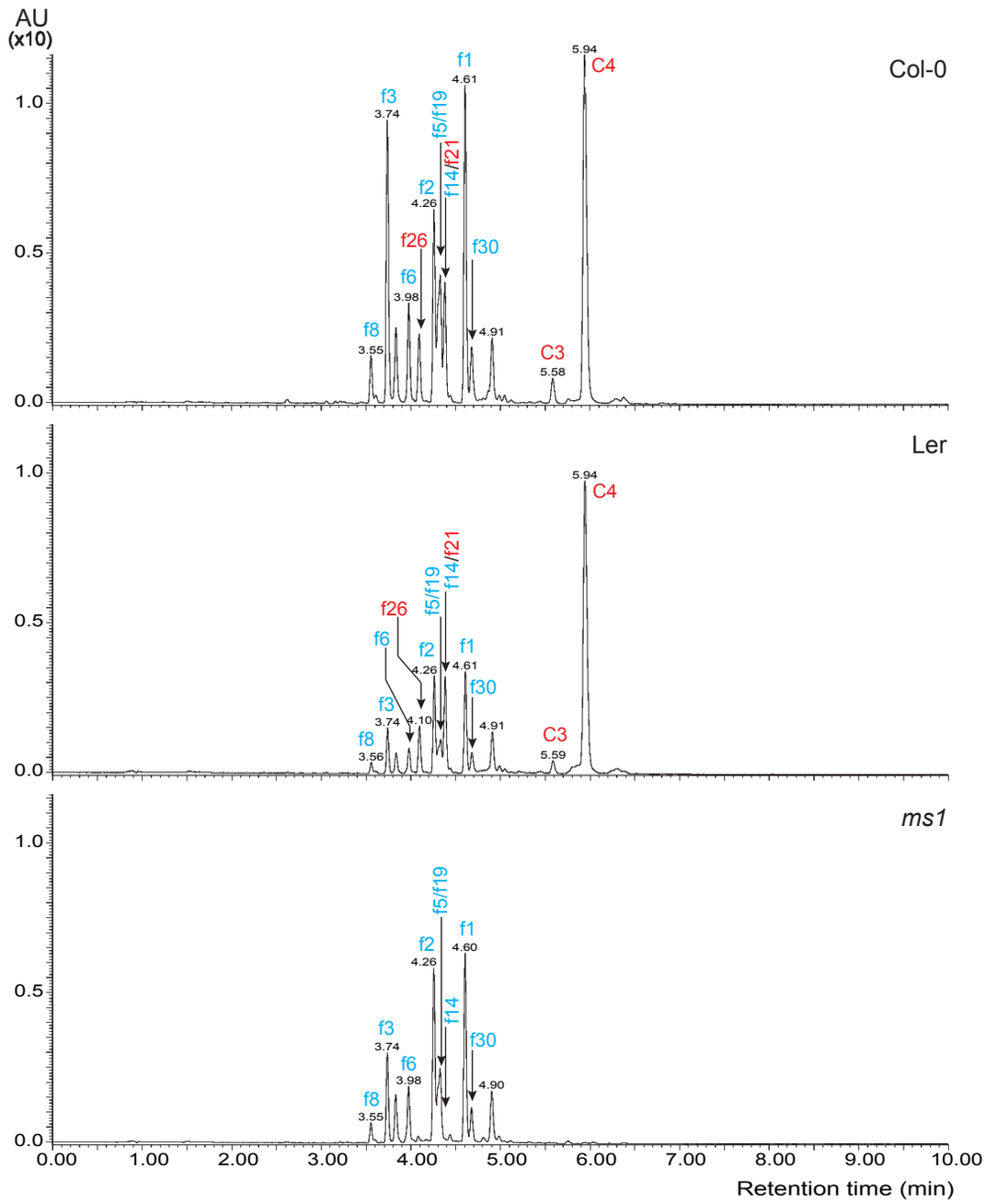

Figure S3. UPLC/PDA/MS analysese of the extracts from flowers of wild-type (Col-0 and Ler) and ms1 mutants. UPLC/PDA/MS chromatograms of aqueous methanol extracts from Arabidopsis flowers. Absorbance at 320 nm was used for the detection of flavonols. Labels correspond to compounds shown in Figure S1. Compounds detected in all Arabidopsis lines and only wild-type were shown in blue and red, respectively.

For untargeted profiling, a Waters Acquity UPLC system (Waters) fitted with a Q-TOF Premier mass spectrometer (Micromass MS Technologies) was used. UPLC was performed on a Acquity bridged ethyl hybrid (BEH) C18 (1.7 lm, 2.1 mm 9 100 mm, Waters) at a flow rate of 0.3 mL/min at 38 ºC. Compounds were separated with a linear elution gradientwith solvent A (0.1%formic acid in water) and solvent B (0.1% formic acid in acetonitrile) from 0 min, 99% A to 15 min, 99.5% B. PDA was used for the detection of UV-visible absorption in the range of 200 to 500 nm. The TOF mass analyzer was used for the detection of flavonol glycosides [M + H]+ and the peak of fragment ions in a positive ion scanning mode with the following setting: desolvation temperature, 450 ºC with a nitrogen gas flow of 800 L/h; capillary spray, 3.0 kV; source temperature, 120 ºC; and collision energy, 2.0 V.