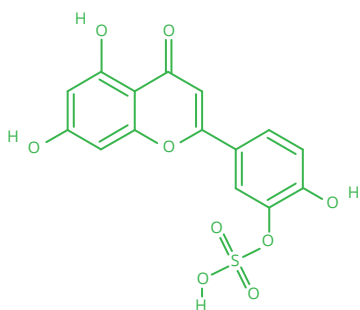


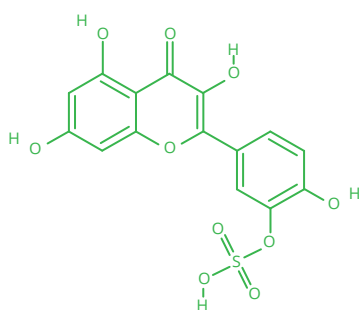
Flavonoids and their sulfated metabolites by HPLC method

Flavonoids have antioxidant and antiviral properties and are widely used as drugs and dietary supplements. Sulfation reaction of flavonoid compounds is part of mammalian metabolism. The presented method allows to separate parent compounds luteolin, quercetin, silychristin and their sulfated derivatives in enzymatic sulfation reaction mixtures.

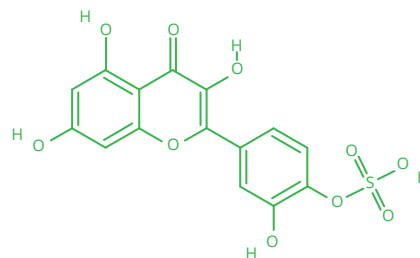
Substance	Luteolin-3'-O-sulfate
Synonym	Luteolin sulfate
Substance	Quercetin-3'-O-sulfate, CAS number 62369-28-2
Substance	Quercetin-4'-O-sulfate, CAS number 695145-26-7
Synonym	Quercetin sulfate
Substance	Silychristin-19-O-sulfate
Synonym	Silychristin sulfate



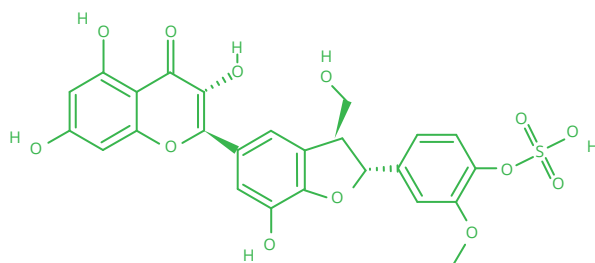
Luteolin-3'-O-sulfate



Quercetin-3'-O-sulfate

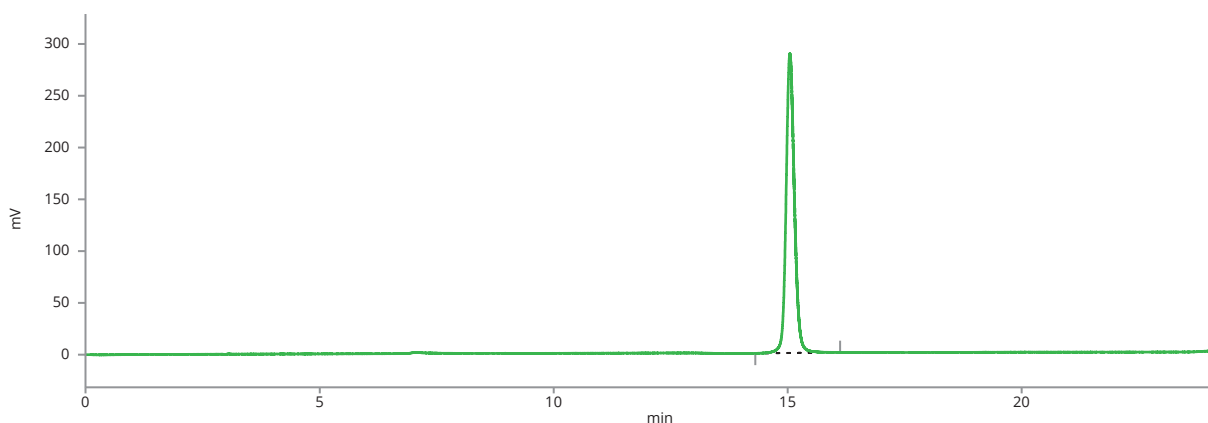


Quercetin-4'-O-sulfate

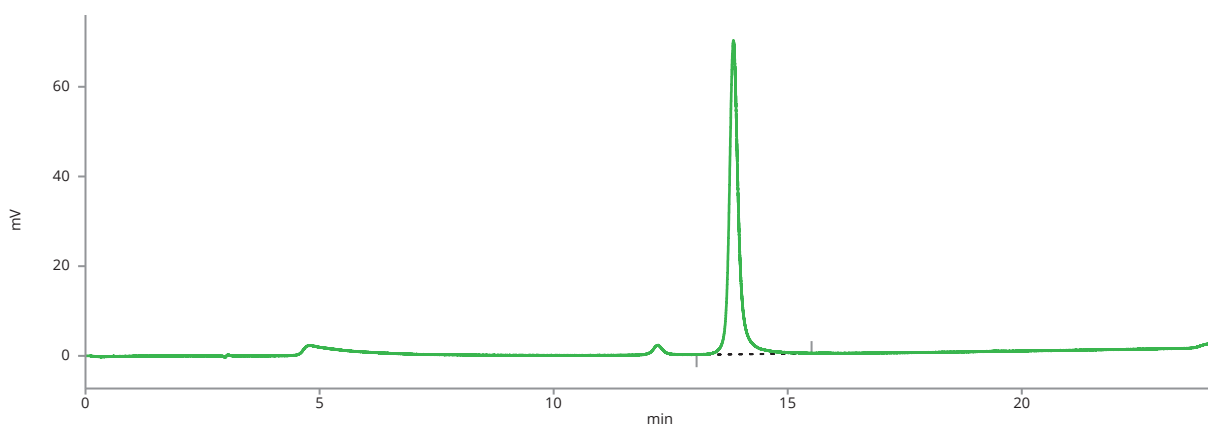


Silychristin-19-O-sulfate

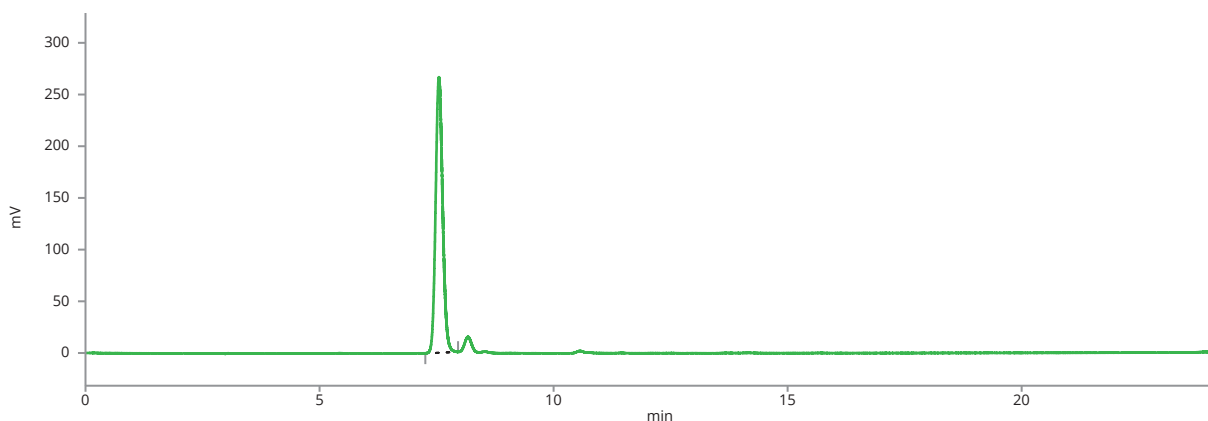
Flavonoids and their sulfated metabolites by HPLC method



Analysis of luteolin sulfate on ARION® column



Analysis of quercetin sulfates on ARION® column



Analysis of silychristin sulfate on ARION® column



Flavonoids and their sulfated metabolites by HPLC method

Column	ARION® PFP, 5.0 µm		
Dimensions	150 mm × 4.6 mm		
Part number	ARI-5873-LK46		
Mobile phase	A: 10mM Ammonium acetate + 0.1 % HCOOH B: Methanol		
Gradient elution	Time (min)	%A	%B
	0	60	40
	20	28	72
	21	60	40
	24	60	40
Flow rate	0.6 mL/min		
Temperature	45 °C		
Detection	DAD at 200–400 nm		
Injection volume	1 µL		
Analytes	1. Luteolin sulfate (at 337 nm) 2. Quercetin sulfate (at 365 nm) 3. Silychristin sulfate (at 267 nm)		

This application was developed by the Laboratory of Biotransformation of the Institute of Microbiology of the Czech Academy of Sciences.

