

Quantitative UV HPLC Analysis of Biosynthetic Ferruginol

Equipment

Agilent 1100 HPLC system with DAD
 Analytical Balance
 Column: Amaze C18 PFP, 4.6x150 mm, 3 um, 100A

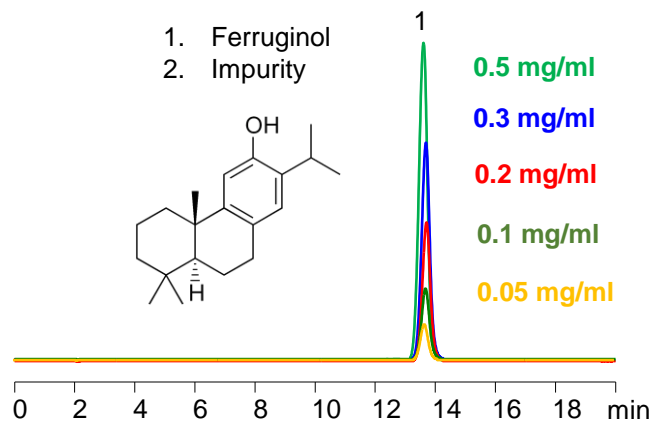
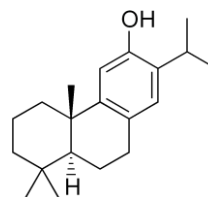
Materials:

Biosynthetic ferruginol
 Ferruginol STD (HelixChrom, RS-FRGNL.10.10)
 Trifluoroacetic acid (Aldrich, catalog #74564)
 MeOH (Spectrum, catalog #HP702)
 Distilled water (Aldrich, catalog #270733)

Method Description

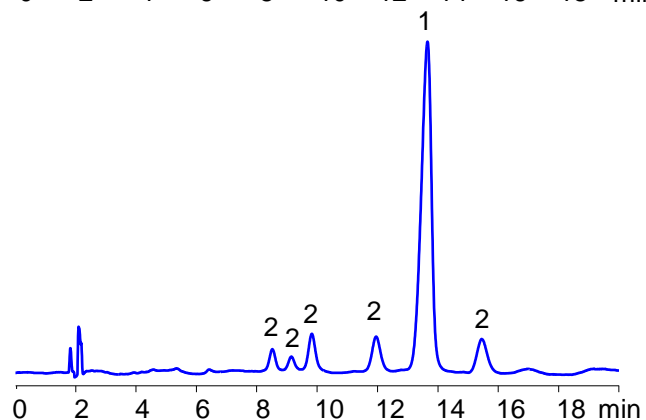
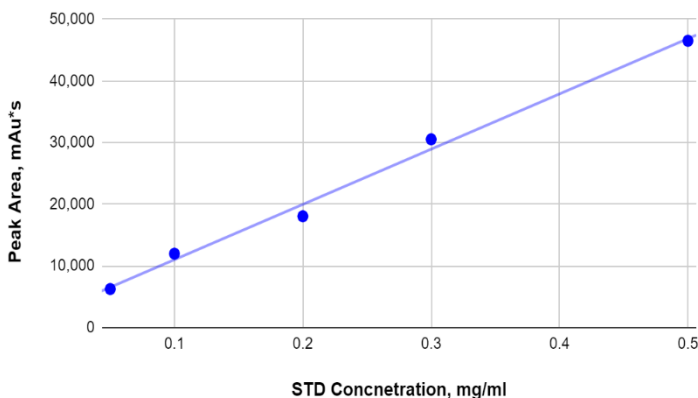
HPLC Q-Pump set up: **A:** DI water, **B:** MeOH, **C:** 1% HClO₄
 Mobile phase: 65% ACN with 0.1% HClO₄
 Mobile phase composition: : **A:** 30%, **B:** 65%, **C:** 10%

1. Ferruginol
2. Impurity



Ferruginol Calibration and Sample Analysis

Calibration Curve for Ferruginol Standards
 Rs - 0.993%



Column: Amaze C18 PFP
Dimensions: 4.6x150mm, 3 um, 100A
Mobile phase: 65% MeOH with 0.1% HClO₄
Flow: 1 ml/min
Detection: 255 nm
Sample: Standards and sample

STD Concentration, mg/ml	Peak Area, mAu*s	Conc. of Ferruginol in Sample, mg/ml	Ferruginol Calculated Purity, %
0.5	46,505	-	-
0.3	30,532	-	-
0.2	18,054	-	-
0.1	11,987	-	-
0.05	6,255	-	-
Ferruginol	20,127	0.225	89%