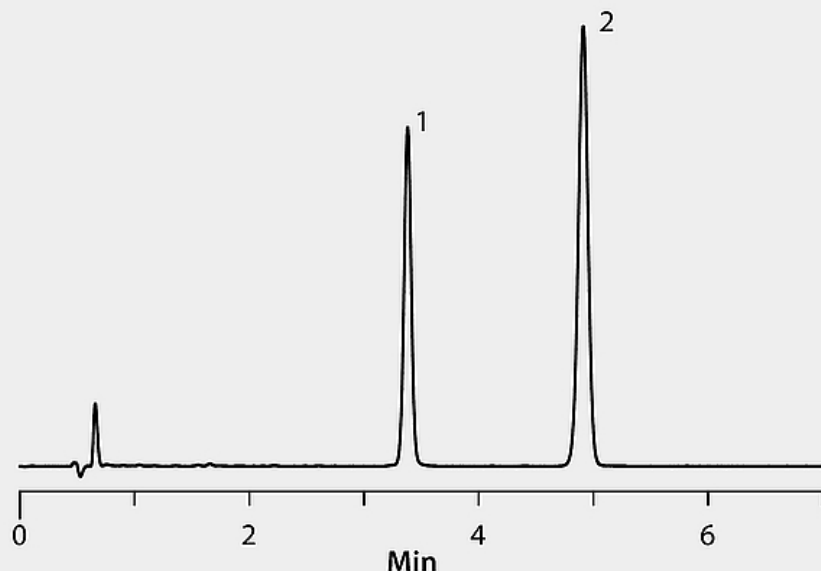


HPLC Analysis of Geldanamycin and 17-(Allylamino)-17-demethoxy geldanamycin on Ascentis® Express C18

1. Geldanamycin
2. 17-(Allylamino)-17-demethoxygeldanamycin



Conditions

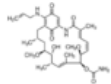
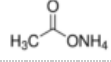
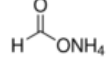

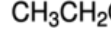
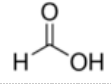
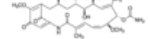

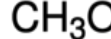
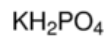
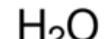
column	Ascentis Express C18, 10cm X 3.0mm I.D, 2.7 µm particles (53814-U)
column temp.	35 °C
mobile phase	[A] 0.1% formic acid in water [B] acetonitrile, 55:45 A:B
flow rate	0.8 mL/min
pressure	3300 psi (228 bar)
sample	50 ug/mL each in 10% methanol
injection	5 µL
detector	UV, 254 nm

Description

Analysis Note	The compound 7-(allylamino)-17-demethoxygeldanamycin (AAG) is a derivative of geldanamycin, a potent herbicidal agent isolated from the soil organism streptomyces hygroscopicus. Geldanamycin has been explored as a possible human antibiotic, but toxicity concerns have hindered its introduction. However, the AAG derivative is better tolerated and has undergone further clinical development at the time of this writing. Shown here is the rapid separation of both compounds on an Ascentis Express C18 column. High purity solvents and additives used in the mobile phase provided robust operation.
Categories	Analytical Chromatography, Herbicides
Featured Industry	Agriculture Environmental Pharmaceutical (small molecule)
Legal Information	Ascentis is a registered trademark of Sigma-Aldrich Co. LLC
suitability	application for HPLC

Materials

Product #	Image	Description
5.33001		Acetic acid 100% for LC-MS LiChropur™ for LC-MS LiChropur®
1.00029		Acetonitrile hypergrade for LC-MS LiChrosolv® hypergrade for LC-MS LiChrosolv®

Product #	Image	Description
A8476		17-(Allylamino)-17-demethoxygeldanamycin ≥98% (HPLC), solid
73594		Ammonium acetate for mass spectrometry, LiChropur™, eluent additive for LC-MS
70221		Ammonium formate eluent additive for LC-MS, LiChropur™, ≥99.0%
53814-U		Ascentis® Express C18, 2.7 µm HPLC Column 2.7 µm particle size, L × I.D. 10 cm × 3 mm
1.11727		Ethanol gradient grade for liquid chromatography LiChrosolv® gradient grade for liquid chromatography LiChrosolv®
5.33002		Formic acid 98% - 100% for LC-MS LiChropur™ for LC-MS LiChropur®
G3381		Geldanamycin from <i>Streptomyces hygroscopicus</i> ≥98% (HPLC), powder
SML1278		Geldanamycin Ready Made Solution 1 mg/mL, from <i>Streptomyces hygroscopicus</i>
1.06007		Methanol gradient grade for liquid chromatography LiChrosolv® Reag. Ph Eur gradient grade for liquid chromatography LiChrosolv® Reag. Ph Eur
1.06035		Methanol hypergrade for LC-MS LiChrosolv® hypergrade for LC-MS LiChrosolv®
5.43841		Potassium dihydrogen phosphate anhydrous for HPLC LiChropur™ for HPLC LiChropur®
69372		Triethylammonium acetate buffer for HPLC, 0.98-1.02 M
1.15333		Water for chromatography (LC-MS Grade) LiChrosolv® for chromatography (LC-MS Grade) LiChrosolv®