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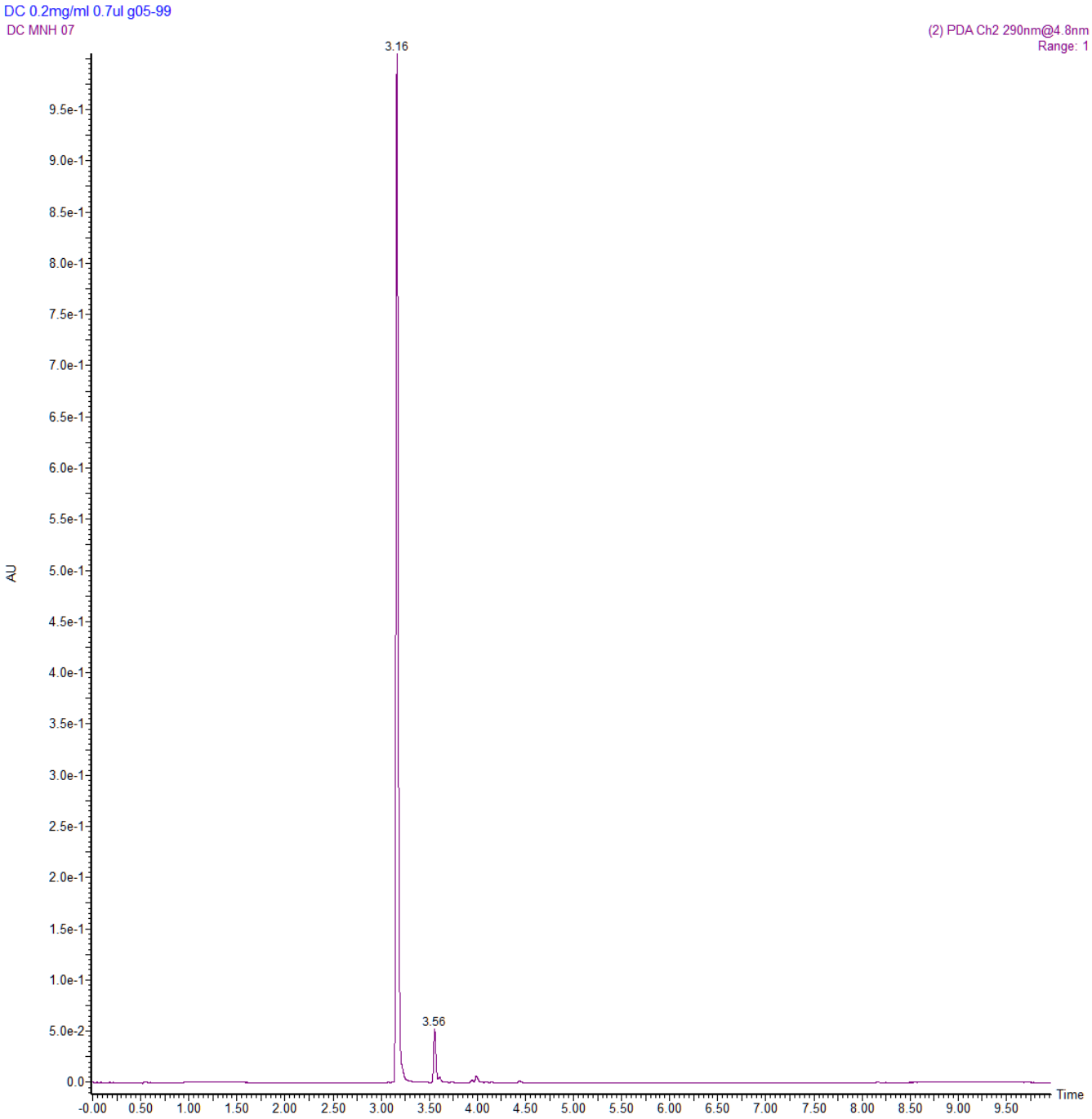
Analysis of a dihydroquercetin sample

№	Name	Source
	Dihydroquercetin Sample	Siberian Larch

1. Chromatogram (UV detector, 290 nm)



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2. Detectable peaks

RT	*Area, %*	*M*	*Mexp*	*F*	*C*
3.16	94.1	303.0507	303.0505	$C_{15}H_{12}O_7$	dihydroquercetin
3.56	4.9	287.0560	287.0557	$C_{15}H_{12}O_6$	desoxy dihydroquercetin, isomer A (aromadendrin?)
3.61	0.4	287.0555	287.0557	$C_{15}H_{12}O_6$	desoxy dihydroquercetin, isomer B
3.99	0.6	301.0347	301.0348	$C_{15}H_{10}O_7$	quercetin

RT – research time, min

Area, % – relative peak area, according to UV 290 nm detector

M – according to mass spectrometry data, ESI(-) is the mass of the detected ion

Mexp – expected ion mass for column gross formula "F"

F – possible gross formula

C – possible connection

3. Conditions

LC		Waters ACQUITY Premier
	Column:	Waters ACQUITY Premier BEH C18 2.1x50mm 1.7 um
	Column Temp.:	30C
	Mobile phase A:	water + 0.041% formic acid
	Mobile phase B:	acetonitrile + 0.050% formic acid
	Flow Rate:	0.3 ml/min
	Gradient:	5-99%B in 0.5-9.5 min
	Injection:	0.7ul (140 ng)
	Detector:	PDA; 3D: 200-600 nm; 2D: 290 nm, bandwidth 4.8 nm
MS		Waters SYNAPT XS HDMS
	Mode:	ESI(-), TOF MS, High Resolution Mode, range 50-1200 m/z

4. Conclusions

The main component corresponds to dihydroquercetin in molecular weight. The content is 94% (assuming that the impurity components have the same specific absorption at UV 290 nm). The impurities are typical for preparations obtained from natural sources.