






Fractions of Venoms from Elapid, Crotalid and Viperid Snakes, Scorpions, Spider, Amphibians

PRODUCT INFORMATION

The **KITOXAN®-V04** Library is a set of **5 plates (96-wells)** containing freeze-dried fractions of venoms from the **following species**:

	VIP-5 (Viperid snakes) <i>Echis coloratus, Vipera berus, Cerastes gasperettii, Macrovipera deserti</i>
	VIP-6 (Viperid snakes) <i>Macrovipera lebetina turanica, Macrovipera schweizeri, Macrovipera lebetina obtuse, Macrovipera lebetina cdernovi</i>
	ELA-3 (Elapid snakes) <i>Walterinnesia aegyptia, Dendroaspis jamesoni jamesoni, Dendroaspis viridis, Naja haje haje</i>
	CRO-5 (Crotalid snakes) <i>Bothrops jararaca, Bothrops asper, Cryptelytrops macrops, Agkistrodon contortrix contortrix</i>
	CRO-6 (Crotalid snakes) <i>Bothrops lanceolatus, Lachesis muta, Crotalus molossus molossus, Lachesis stenophrys</i>

i TECHNICAL INFORMATION

STORAGE

Lyophilised: **+ 4°C**
Solubilized: **For immediate use only.**
Only if needed, solution can be kept at **-20°C**.

HANDLING

Centrifuge before opening the plates.
Recommended centrifugation speed is **1100 g for 10 mn** (3000 rpm with a 110mm rotor radius). Open cautiously (lyophilised content).

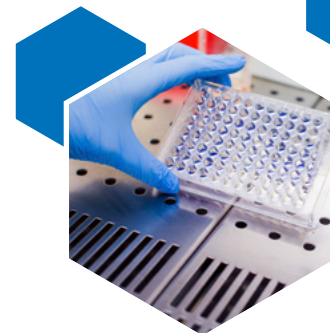
RECONSTITUTION

Solvent : 5 to 10% **DMSO** solution
In cases when DMSO cannot be used, wells shall be diluted in a solution water/acetonitrile with ratio **100/0 to 50/50**.

VENOM FRACTIONATION METHOD

Venoms have been cleared of molecules over **10 kDa**, mostly enzymes, by prior **gel permeation**.

Then each venom has been fragmented in **20 fractions** through HPLC preparative column (cut-offs every 3 min). Location of each fraction is shown on following **plate maps**.

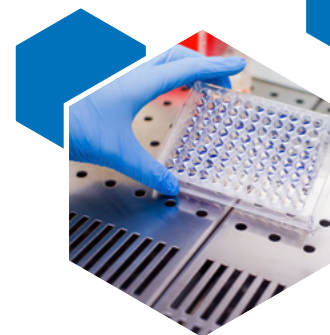


Fractions of Venoms from Elapid, Crotalid and Viperid Snakes, Scorpions, Spider, Amphibians

PLATE MAPS

Plate VIP-5												
	1	2	3	4	5	6	7	8	9	10	11	12
A	×	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	×
B	×	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	ECH COL	×
C	×	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	×
D	×	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	VIP BER	×
E	×	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	×
F	×	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	CER GAS	×
G	×	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	×
H	×	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	MAC DES	×

Plate VIP-6												
	1	2	3	4	5	6	7	8	9	10	11	12
A	×	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	×
B	×	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	MAC LET	×
C	×	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	×
D	×	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	MAC SCH	×
E	×	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	×
F	×	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	MAC LEO	×
G	×	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	×
H	×	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	MAC LEC	×



Fractions of Venoms from Elapid, Crotalid and Viperid Snakes, Scorpions, Spider, Amphibians

Plate ELA-3

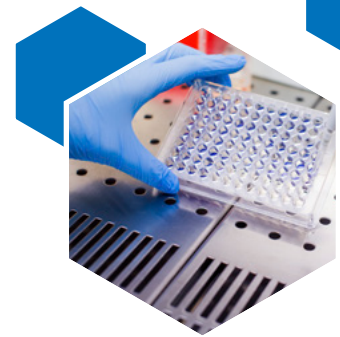
	1	2	3	4	5	6	7	8	9	10	11	12
A	×	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	×
B	×	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	WAL AEG	×
C	×	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	×
D	×	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	DEN JAJ	×
E	×	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	×
F	×	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	DEN VIR	×
G	×	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	×
H	×	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	NAJ HAH	×

Plate CRO-5

	1	2	3	4	5	6	7	8	9	10	11	12
A	×	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	×
B	×	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	BOT JAA	×
C	×	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	×
D	×	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	BOT ASP	×
E	×	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	×
F	×	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	CRY MAC	×
G	×	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	×
H	×	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	AGK COC	×

Plate CRO-6

	1	2	3	4	5	6	7	8	9	10	11	12
A	×	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	×
B	×	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	BOT LAN	×
C	×	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	×
D	×	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	LAC MUT	×
E	×	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	×
F	×	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	CRO MOM	×
G	×	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	×
H	×	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	LAC STE	×



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CERTIFICATE OF ANALYSIS

CoA based on pure venom chromatograms performed by HPLC analysis at wave length 214 nm.

See venom chromatograms on the following pages (Annexes)

VENOM SOURCING

All venoms used for KITOXAN fractions come from animals kept in our facilities or safely captured, milked and released alive in the wild.

Our facilities are duly controlled by French veterinary authorities and received an official operating license.

KITOXAN venom fractions are not concerned with CITES regulations.

PRODUCT ID

Name: KITOXAN-V04

Code: L5904

Plates: L5105 VIP-5 Plate, L5106 VIP-6 Plate, L5303 ELA-3 Plate, L5205 CRO-5 Plate, L5206 CRO-6 Plate

PRODUCT INTENDED FOR RESEARCH USE ONLY

FOR MORE INFORMATION PLEASE CONTACT



LATOXAN
LABORATORY
Natural Active Ingredients

LATOXAN SAS

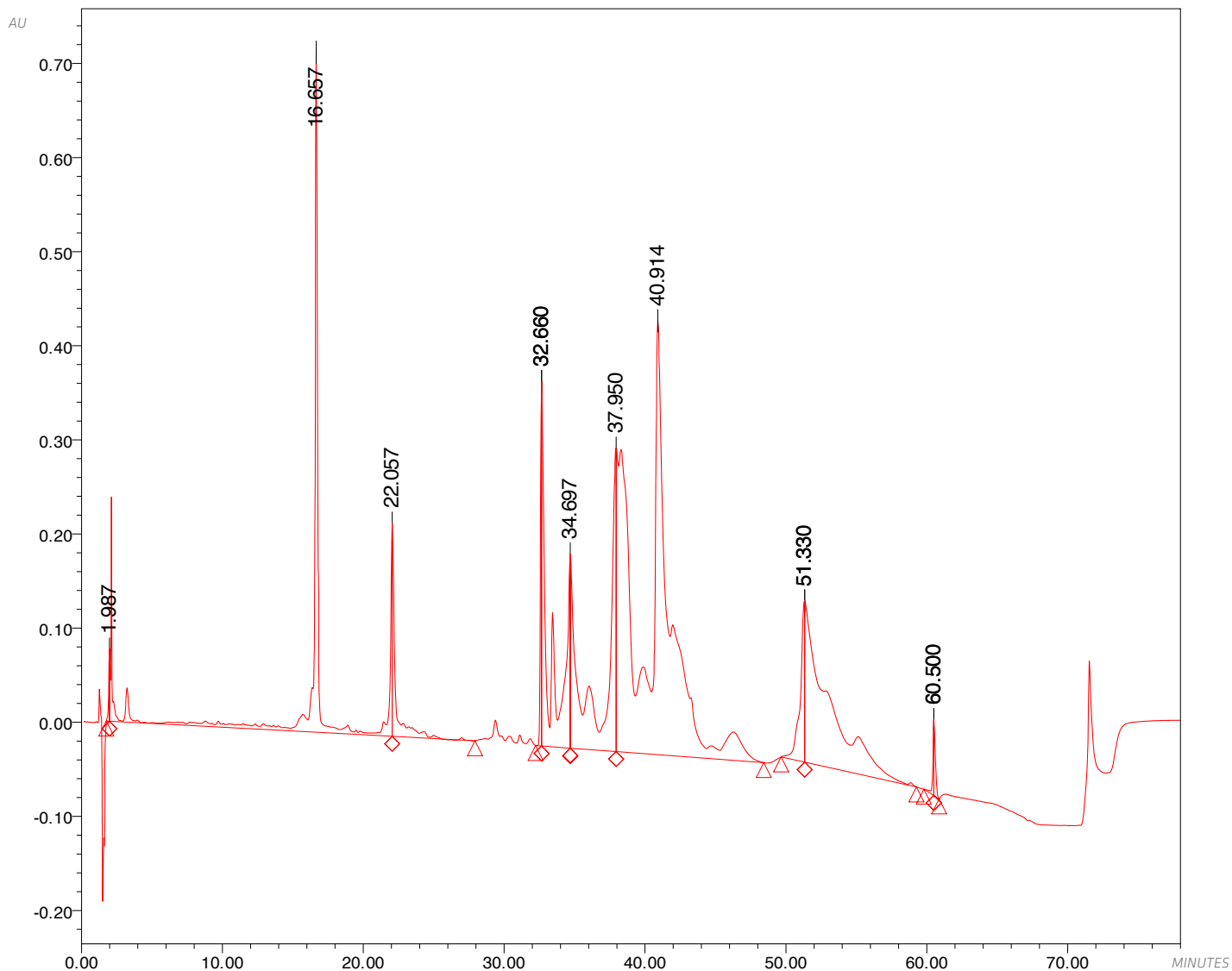
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Contact us: **latoxan@latoxan.com**

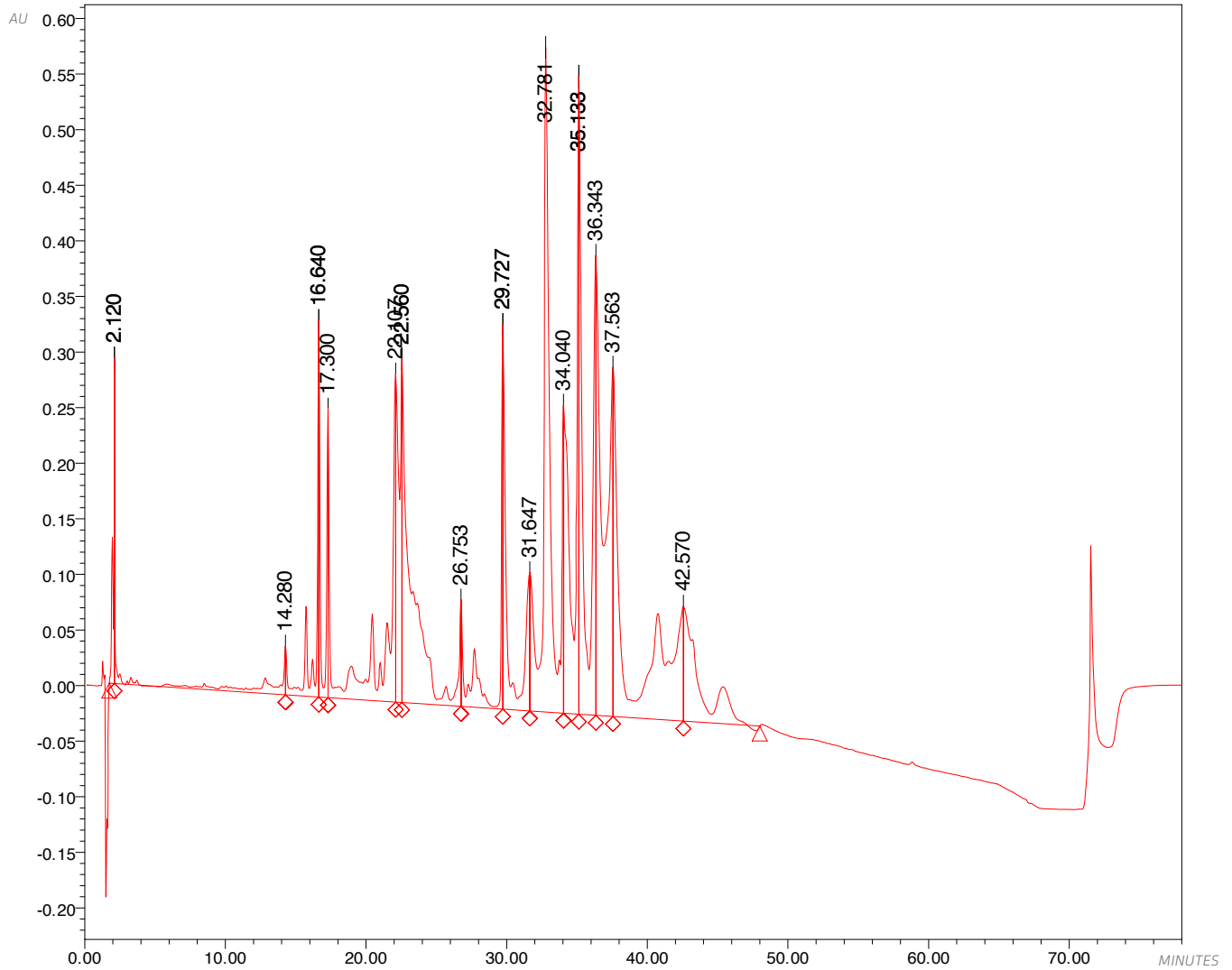
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— AL_LC_CROPS3218 821.180; Vial 25; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 15/11/2010 17:22:41 GMT

PEAK RESULTS

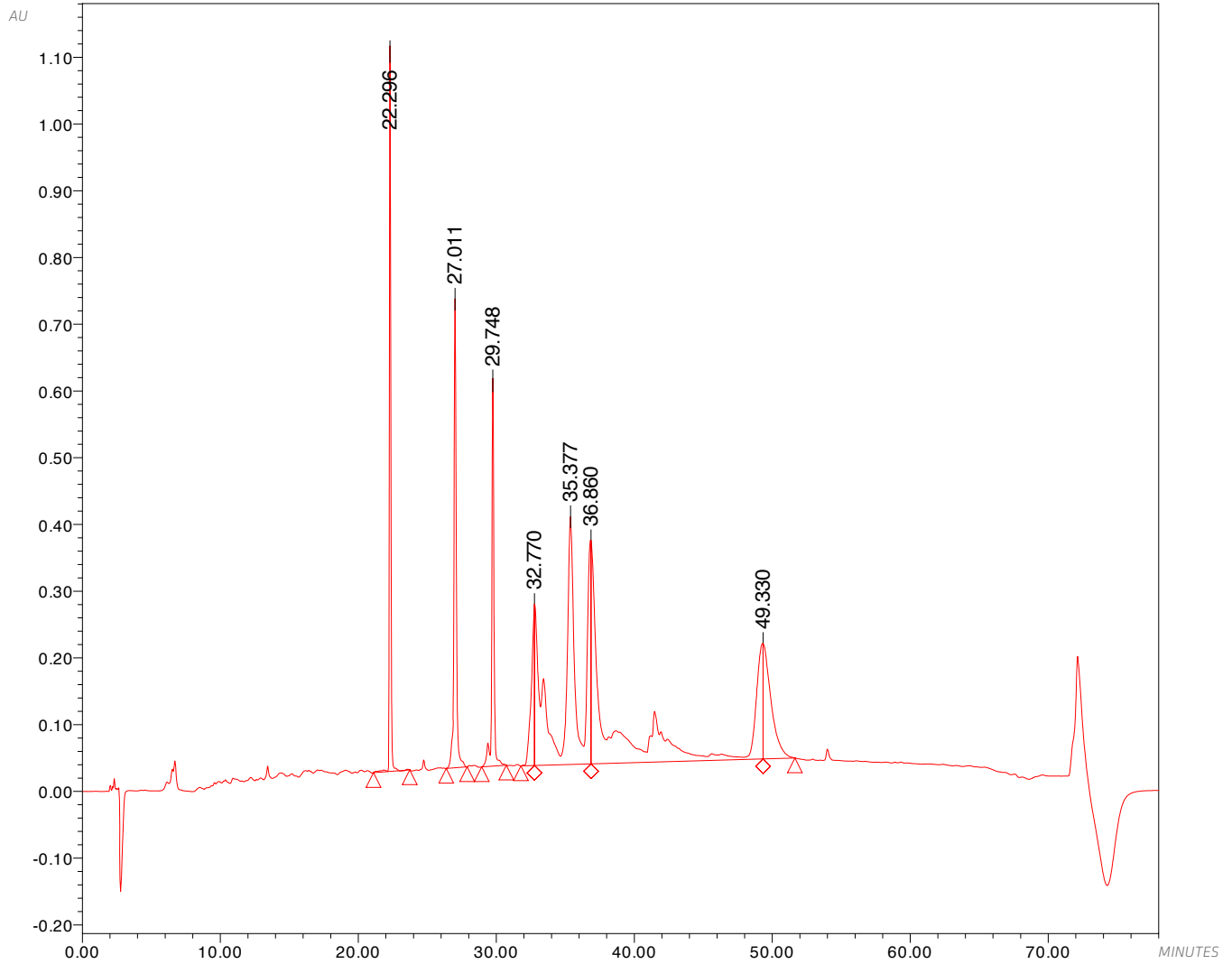
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	25	1.987	293485	76593	0.23	2.32
02	25	16.657	16666752	723468	12.87	21.96
03	25	22.057	3464203	226628	2.67	6.88
04	25	32.660	2139670	387343	1.65	11.76
05	25	32.660	11660332	387343	9.00	11.76
06	25	34.697	41262	206311	0.03	6.26
07	25	37.950	15102995	322342	11.66	9.78
08	25	40.914	56324102	461258	43.48	14.00
09	25	51.330	3601465	171359	2.78	5.20
10	25	51.330	19247675	171359	14.86	5.20
11	25	60.500	384991	80528	0.30	2.44
12	25	60.500	602986	80528	0.47	2.44



— AL_LC_CROPS3219 802.190; Vial 26; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 15/11/2010 18:42:16 GMT

PEAK RESULTS

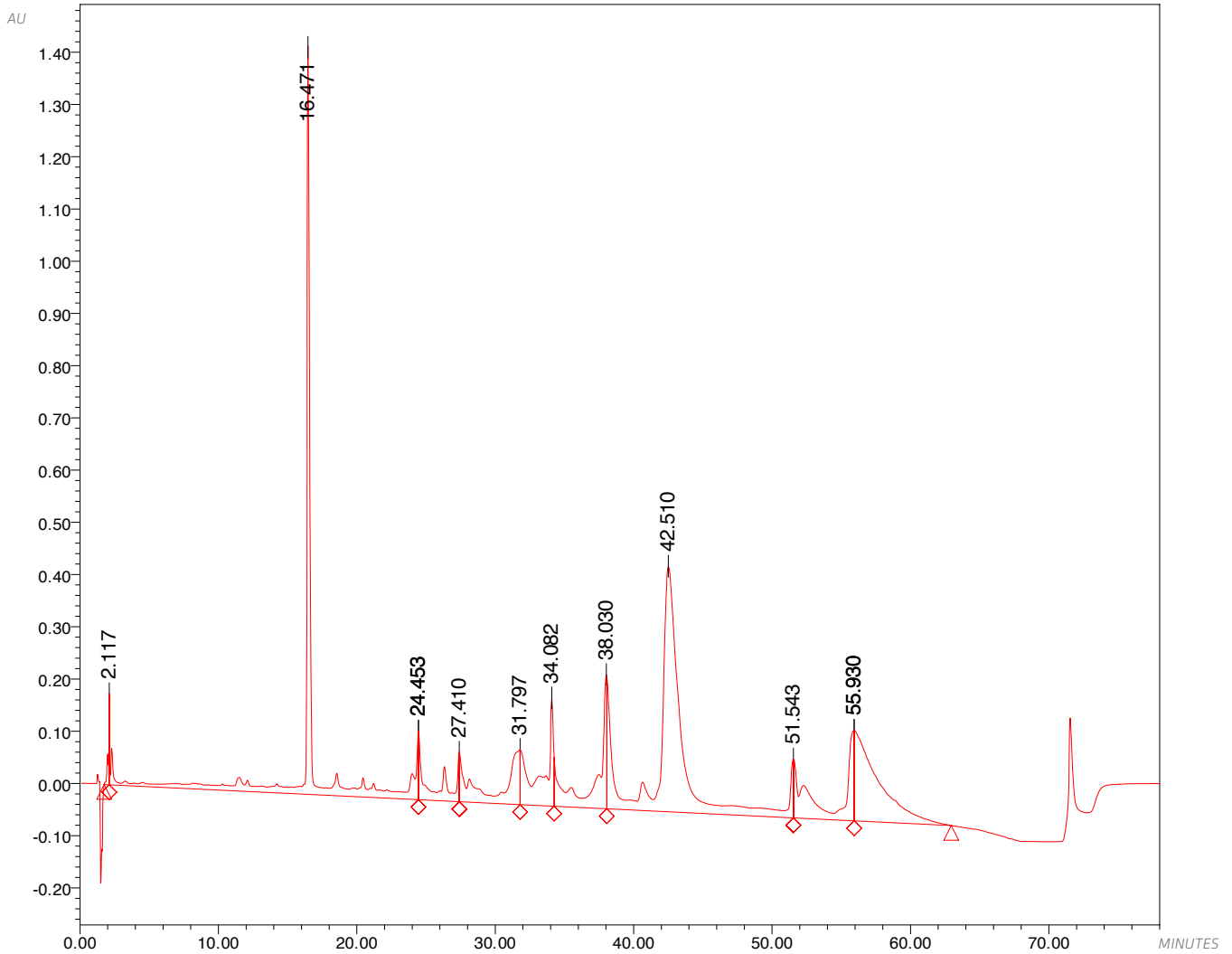
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	26	2.120	1527315	292693	1.05	4.69
02	26	2.120	2978668	292693	2.06	4.69
03	26	14.280	8762	43837	0.01	0.70
04	26	16.640	3709857	338559	2.56	5.42
05	26	16.640	3428198	338559	2.37	5.42
06	26	17.300	51890	260030	0.04	4.16
07	26	22.107	10464562	294870	7.22	4.72
08	26	22.560	6439985	308816	4.44	4.95
09	26	22.560	14187097	308816	9.79	4.95
10	26	26.753	19209	96167	0.01	1.54
11	26	29.727	4849668	345875	3.35	5.54
12	26	29.727	7247264	345875	5.00	5.54
13	26	31.647	24884	124422	0.02	1.99
14	26	32.781	20346433	597886	14.04	9.57
15	26	34.040	166004	276897	0.11	4.43
16	26	35.133	12124986	573716	8.37	9.19
17	26	35.133	14058305	573716	9.70	9.19
18	26	36.343	16619671	413553	11.47	6.62
19	26	37.563	18685691	314057	12.90	5.03
20	26	42.570	7963784	103342	5.50	1.65



— AL_LC_CROPS4904 035.011; Vial 49; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 7/13/2011 6:37:51 PM CEST

PEAK RESULTS

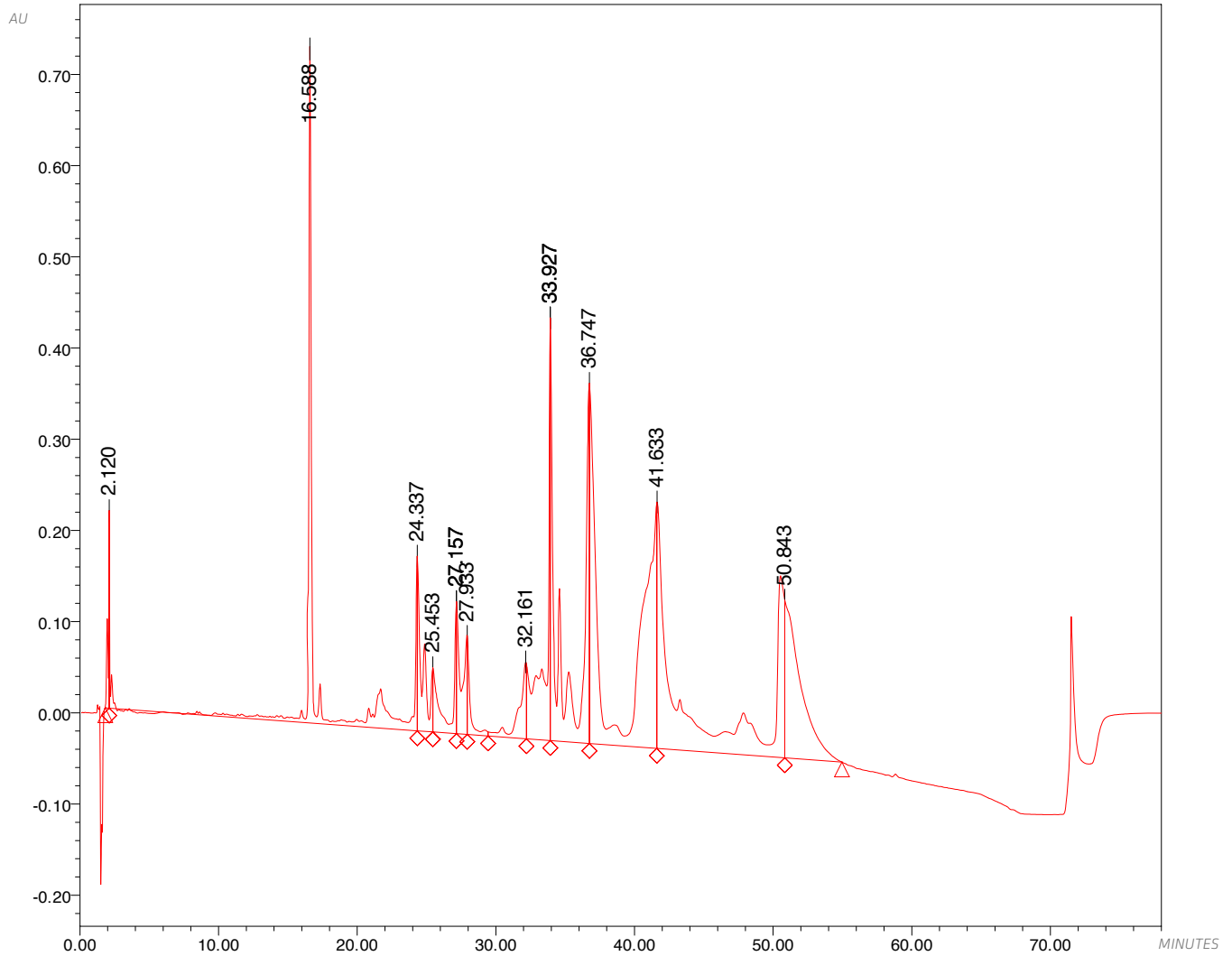
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	49	22.296	7853179	1087304	8.96	31.13
02	49	27.011	8314737	703076	9.48	20.13
03	49	29.748	6310058	581317	7.20	16.65
04	49	32.770	3734709	241787	4.26	6.92
05	49	35.377	27039932	371342	30.84	10.63
06	49	36.860	27412830	334529	31.27	9.58
07	49	49.330	7000863	172964	7.99	4.95



— AL_LC_CROPS3221 410.090; Vial 28; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 15/11/2010 21:21:24 GMT

PEAK RESULTS

	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	28	2.117	726308	174290	0.47	5.03
02	28	16.471	35554320	1432469	22.87	41.36
03	28	24.453	26251	131264	0.02	3.79
04	28	24.453	5464170	131264	3.51	3.79
05	28	27.410	18939	94732	0.01	2.74
06	28	31.797	9790672	105574	6.30	3.05
07	28	34.082	10142067	207918	6.52	6.00
08	28	38.030	11057343	256977	7.11	7.42
09	28	42.510	49866788	470141	32.07	13.57
10	28	51.543	22500	112502	0.01	3.25
11	28	55.930	11908676	173244	7.66	5.00
12	28	55.930	20912499	173244	13.45	5.00



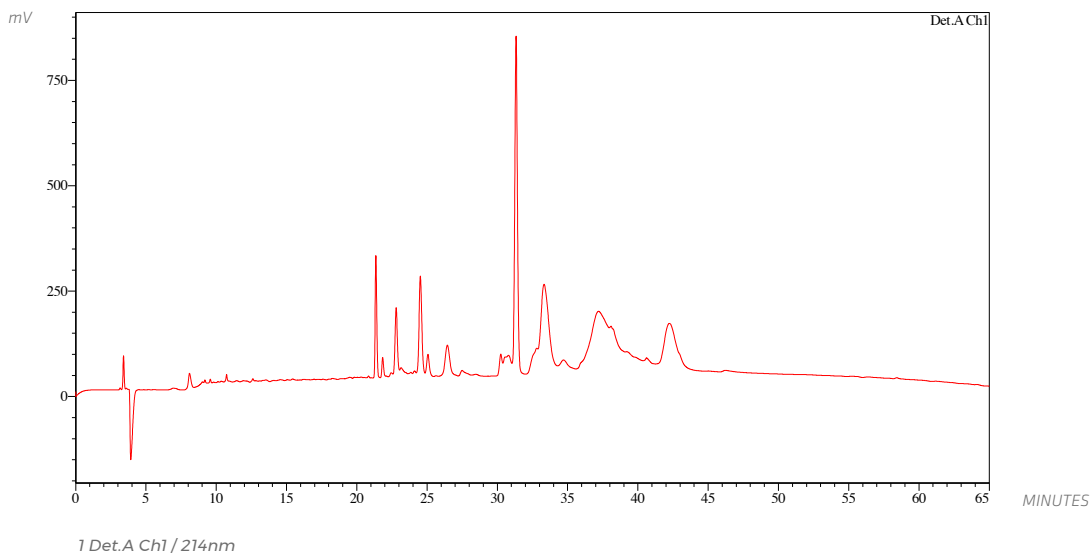
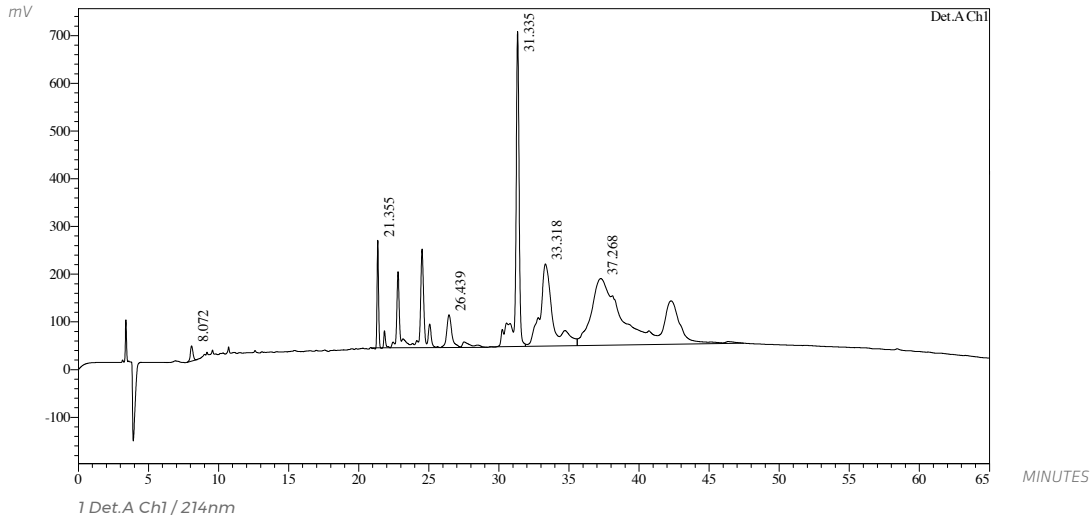
— AL_LC_CROPS3222 528.000; Vial 29; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 15/11/2010 22:41:00 GMT

PEAK RESULTS

	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	29	2.120	1044548	216529	0.81	6.25
02	29	16.588	16918842	741823	13.05	21.40
03	29	24.337	4380704	191408	3.38	5.52
04	29	25.453	14044	70226	0.01	2.03
05	29	27.157	3227958	144635	2.49	4.17
06	29	27.157	3628516	144635	2.80	4.17
07	29	27.933	1507869	108440	1.16	3.13
08	29	32.161	2957657	84332	2.28	2.43
09	29	33.927	8622734	463496	6.65	13.37
10	29	33.927	16928256	463496	13.06	13.37
11	29	36.747	29353634	394773	22.64	11.39
12	29	41.633	27429644	270134	21.16	7.79
13	29	50.843	13642548	172773	10.52	4.98

CERTIFICATE OF ANALYSIS

Venom: **Macrovipera schweizeri**
 Batch: **921.121** Reference batch : **828.090**



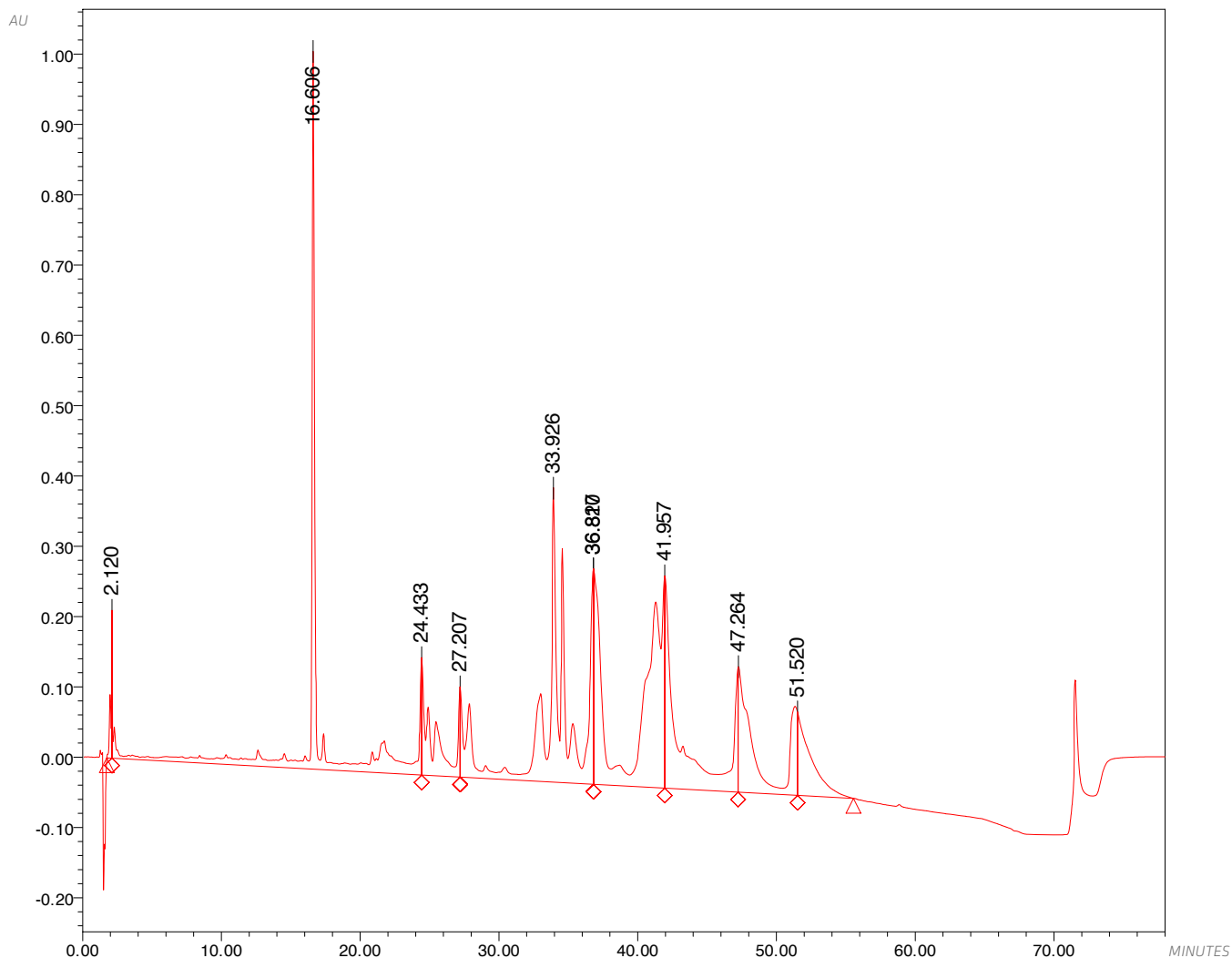
— 828.090.Icd; Vial 31; Ch1: 214 nm; 26/07/2013 19:20:16
 — 921.121.Icd; Vial 32; Ch1: 214 nm; 26/07/2013 20:38:54

(HPLC Column : LichroCART 250-4 PurospherSTAR RP-18 (5µm) Column n°: 114562)

PEAK TABLE

Detector A Ch1 214nm

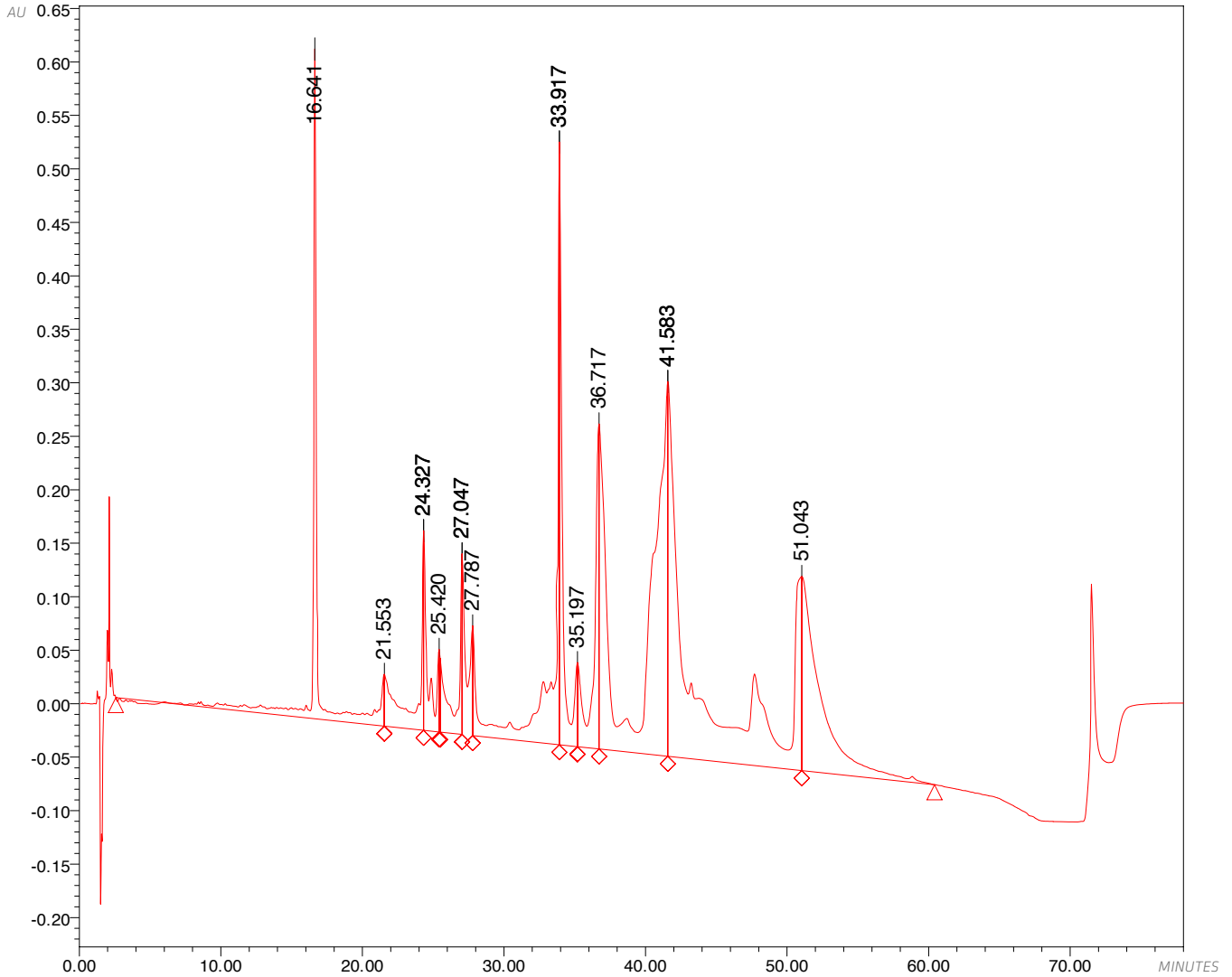
VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
1	8.072	411045	32046	0.671	2.469
2	21.355	8425131	225189	13.762	17.347
3	26.439	2204831	68569	3.601	5.282
4	31.335	11636733	660218	19.008	50.860
5	33.318	10901632	172340	17.807	13.276
6	37.268	27641170	139759	45.150	10.766
Total		61220542	1298121	100.000	100.000



— AL_LC_CROPS3224 727.050; Vial 31; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 01:20:09 GMT

PEAK RESULTS

	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	31	2.120	1043860	210266	0.71	6.66
02	31	16.606	28005408	1021010	18.96	32.33
03	31	24.433	8041323	166868	5.44	5.28
04	31	27.207	25666	128401	0.02	4.07
05	31	33.926	34318271	418945	23.24	13.27
06	31	36.817	61305	306549	0.04	9.71
07	31	36.820	34447421	306502	23.32	9.71
08	31	41.957	19211934	302044	13.01	9.57
09	31	47.264	14650153	178506	9.92	5.65
10	31	51.520	7891185	118671	5.34	3.76



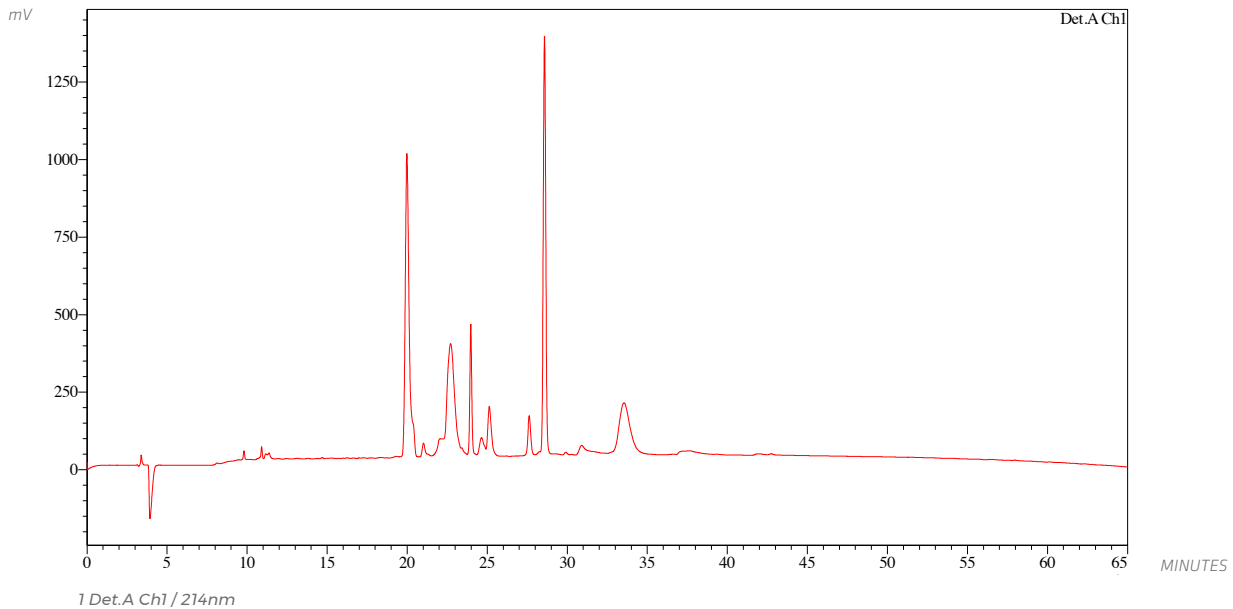
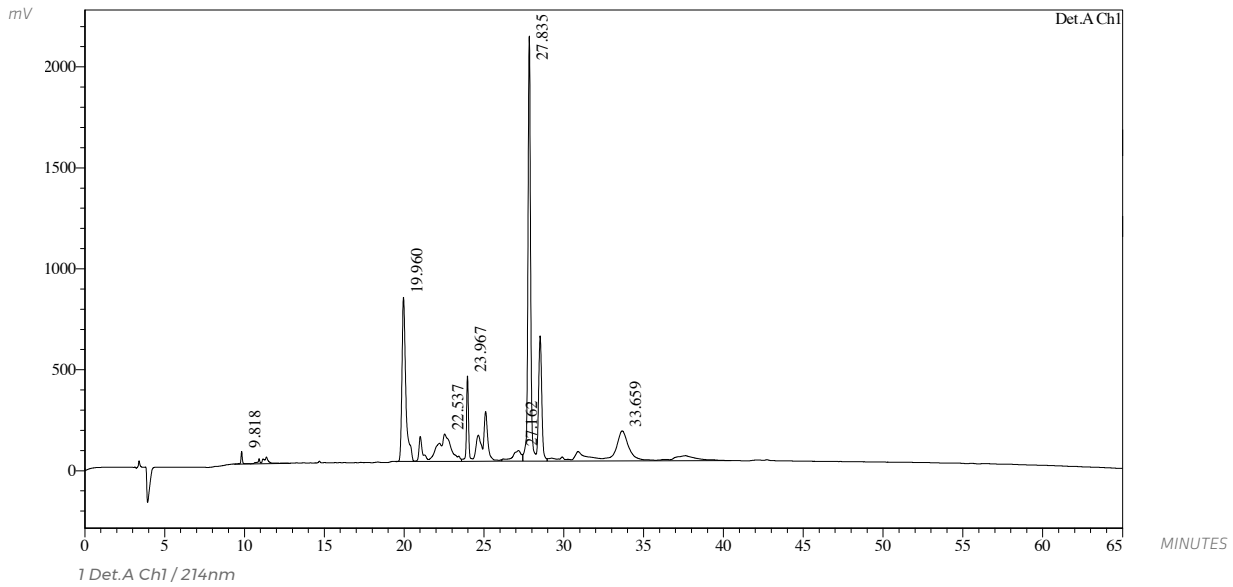
— AL_LC_CROPS3225 911.070; Vial 32; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 02:39:40 GMT

PEAK RESULTS

	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	32	16.641	12887722	626326	9.23	15.83
02	32	21.553	9666	48345	0.01	1.22
03	32	24.327	4731823	186640	3.39	4.72
04	32	24.327	3566241	186640	2.55	4.72
05	32	25.420	356184	77187	0.26	1.95
06	32	27.047	3603233	168729	2.58	4.26
07	32	27.047	33737	168729	0.02	4.26
08	32	27.787	20484	102424	0.01	2.59
09	32	33.917	11801866	563497	8.45	14.24
10	32	33.917	8245838	563497	5.91	14.24
11	32	35.197	15716	78597	0.01	1.99
12	32	36.717	7124459	303867	5.10	7.68
13	32	41.583	32976286	350364	23.62	8.85
14	32	41.583	37719235	350364	27.02	8.85
15	32	51.043	16519314	181490	11.83	4.59

CERTIFICATE OF ANALYSIS

Venom: **Walterinnesia aegyptia**
 Batch: **606.021** Reference batch : **729.030**



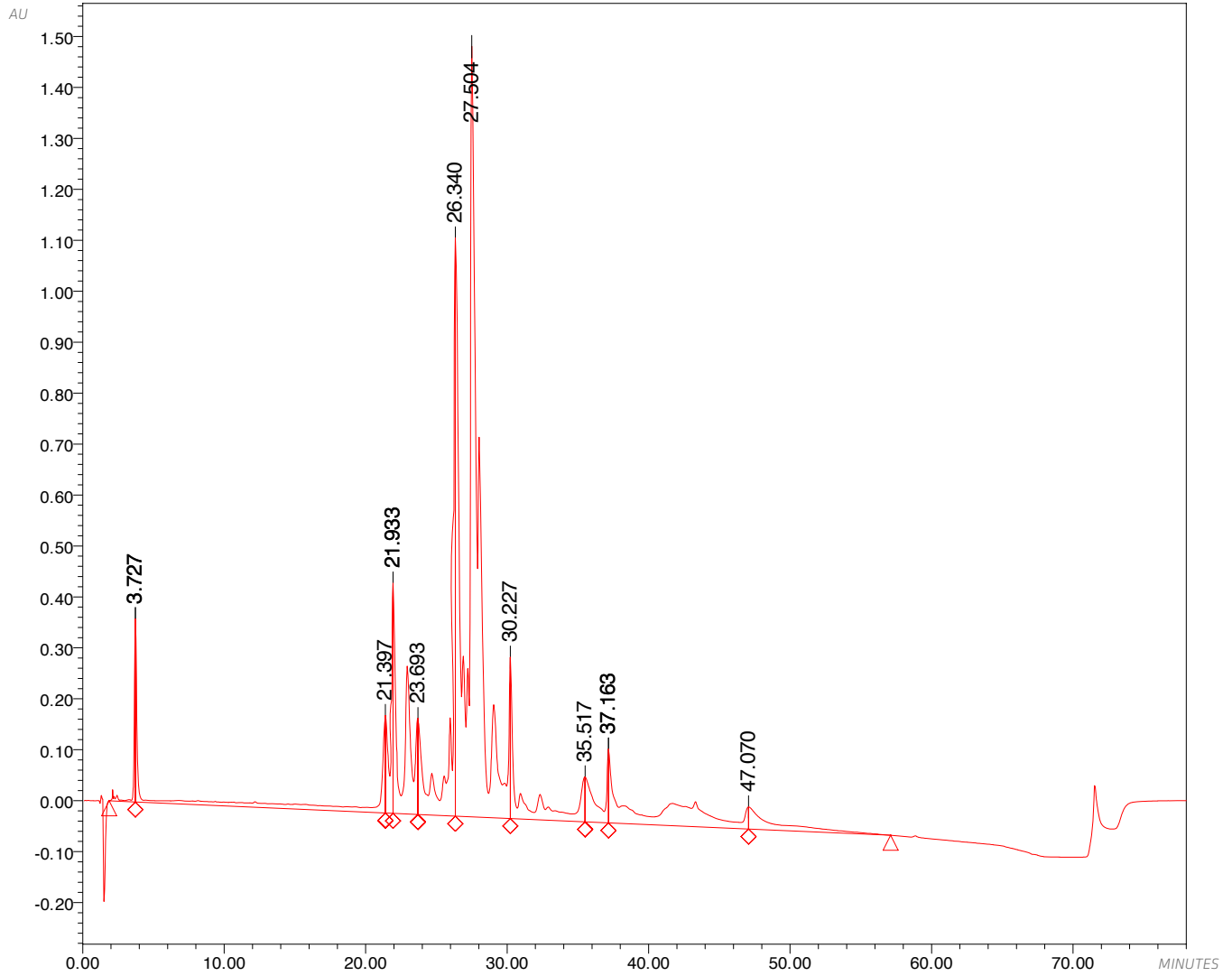
— 729.030.Icd; Vial 3; Ch1: 214 nm; 10/06/2013 21:35:39
 — 729.030.Icd; Vial 3; Ch1: 214 nm; 10/06/2013 21:35:39

(HPLC Column : LichroCART 250-4 PurospherSTAR RP-18 (5µm) Column n°: 114562)

PEAK TABLE

Detector A Ch1 214nm

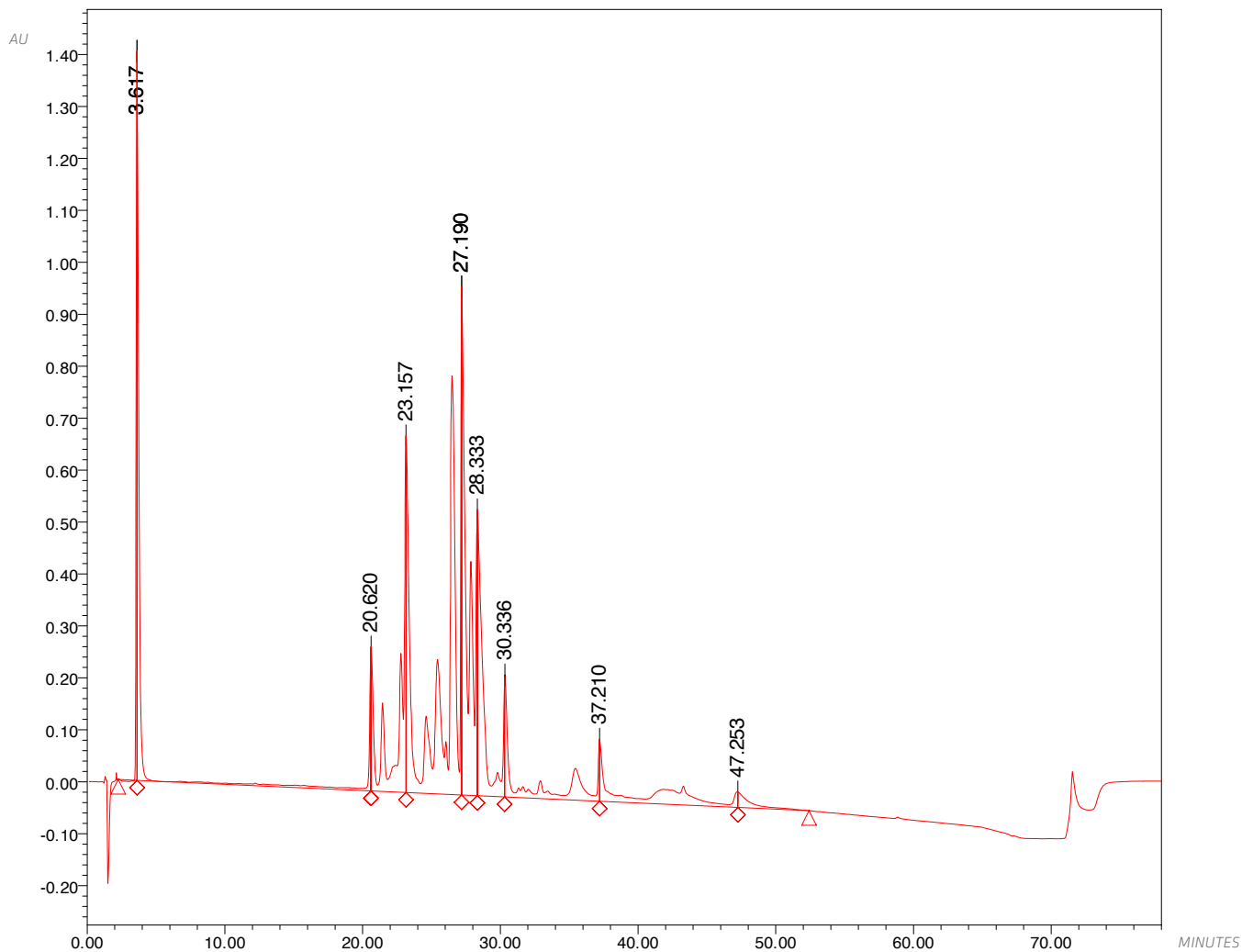
VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
1	9.818	1340611	61677	1.585	1.650
2	19.960	13663204	812766	16.156	21.742
3	22.537	9544358	135511	11.286	3.625
4	23.967	10862669	421887	12.845	11.286
5	27.162	2048345	52324	2.422	1.400
6	27.835	32937658	2105436	38.948	56.322
7	33.659	14171013	148632	16.757	3.976
Total		84567860	3738234	100.000	100.000



— AL_LC_CROPS3227 603.090; Vial 34; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 05:18:50 GMT

PEAK RESULTS

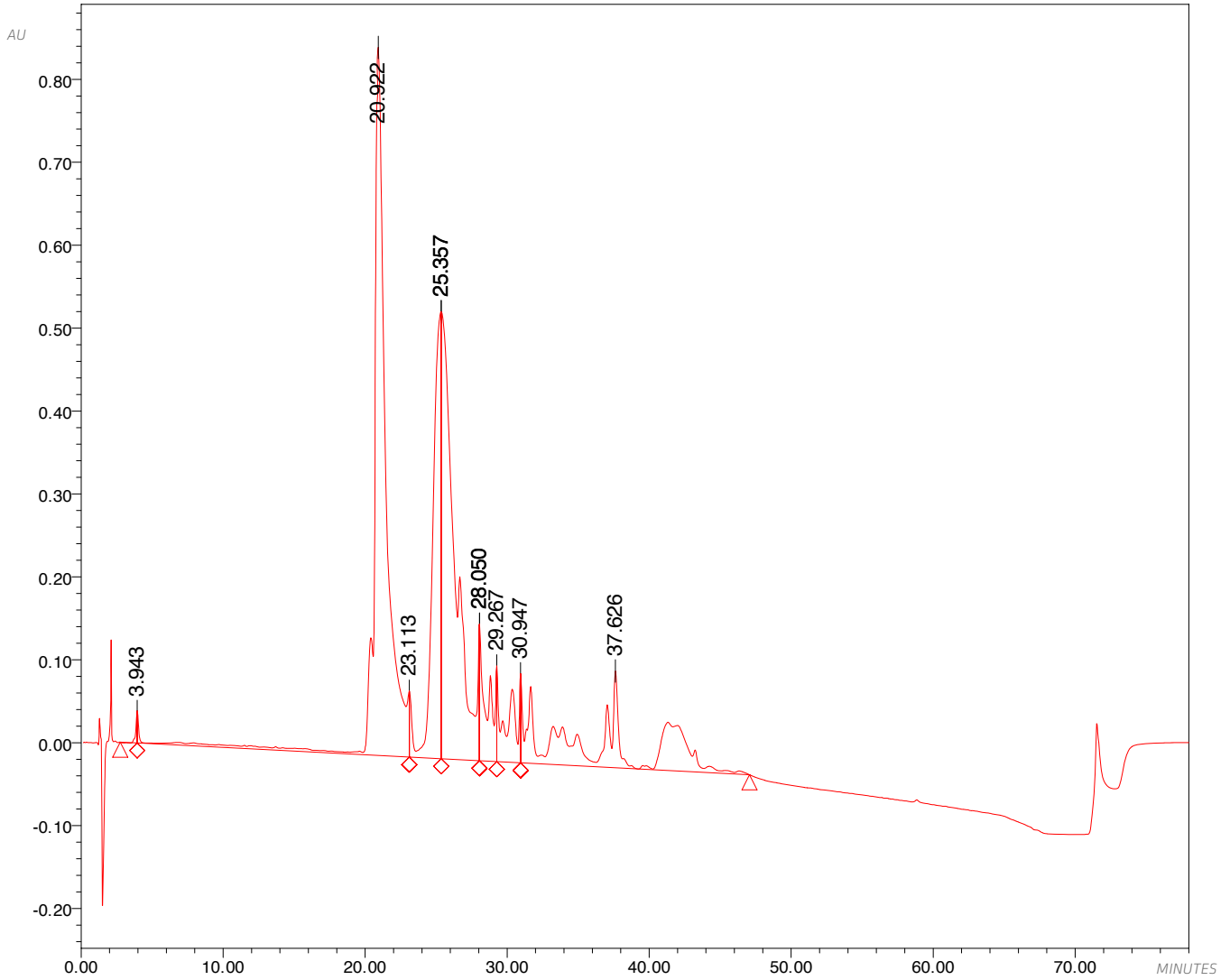
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	34	3.727	2206359	359404	1.24	6.67
02	34	3.727	12579860	359404	7.08	6.67
03	34	21.397	38255	191306	0.02	3.55
04	34	21.933	5482159	451332	3.09	8.38
05	34	21.933	15111181	451332	8.50	8.38
06	34	23.693	37577	188008	0.02	3.49
07	34	26.340	17992274	1134461	10.13	21.07
08	34	27.504	85936922	1512484	48.37	28.09
09	34	30.227	10925116	316394	6.15	5.88
10	34	35.517	17612	88092	0.01	1.64
11	34	37.163	4834440	144661	2.72	2.69
12	34	37.163	17199346	144661	9.68	2.69
13	34	47.070	5319127	43256	2.99	0.80



— AL_LC_CROPS3228 516.001; Vial 35; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 06:38:25 GMT

PEAK RESULTS

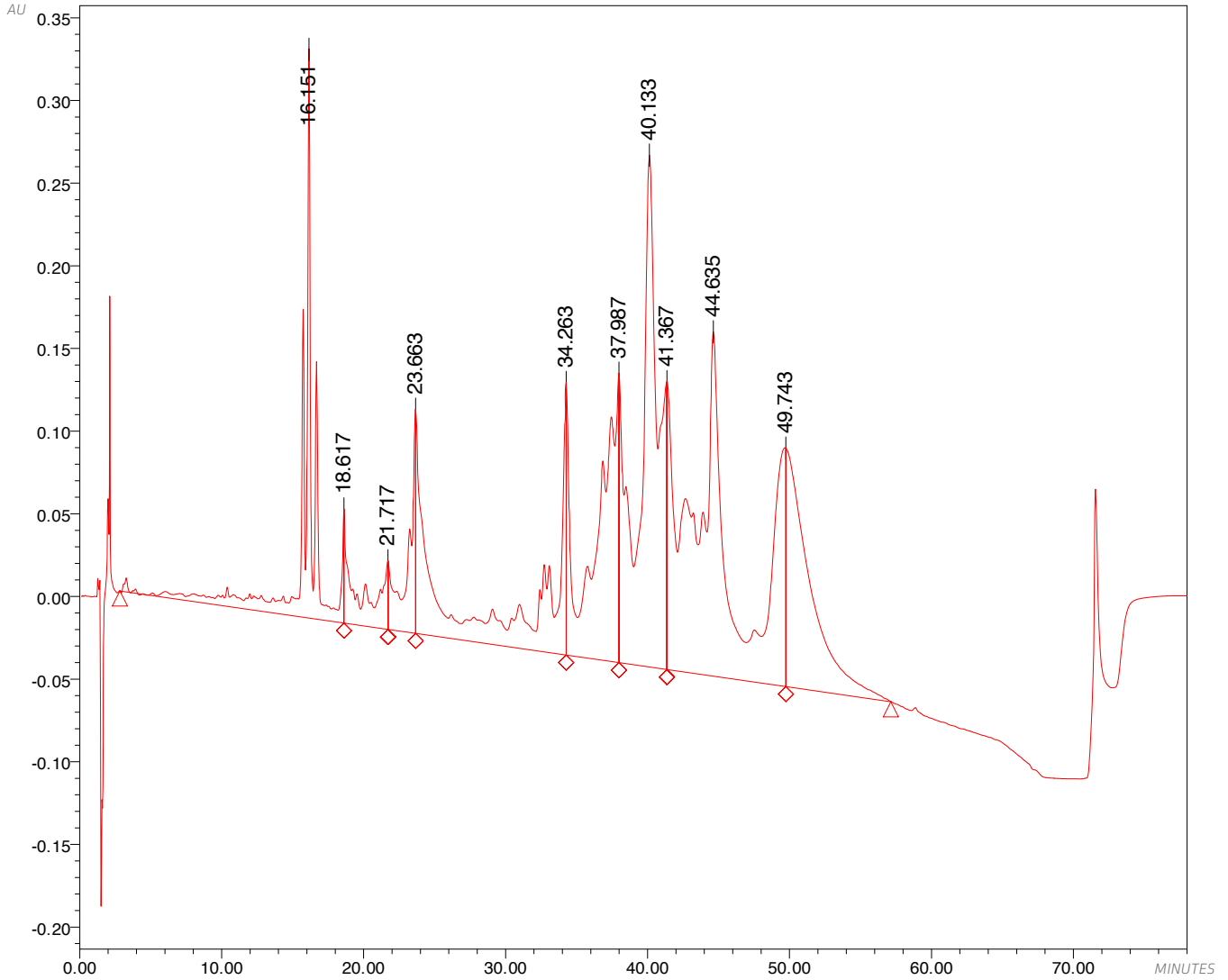
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	35	3.617	5269544	1403787	3.50	21.07
02	35	3.617	16852097	1403787	11.19	21.07
03	35	20.620	55392	277104	0.04	4.16
04	35	23.157	16949595	686510	11.25	10.30
05	35	27.190	46604168	978220	30.95	14.68
06	35	27.190	27302186	978220	18.13	14.68
07	35	28.333	15172326	550678	10.07	8.26
08	35	30.336	10359099	235395	6.88	3.53
09	35	37.210	10216547	119626	6.78	1.80
10	35	47.253	1818598	29870	1.21	0.45



— AL_LC_CROPS3229 822.090; Vial 36; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 07:57:59 GMT

PEAK RESULTS

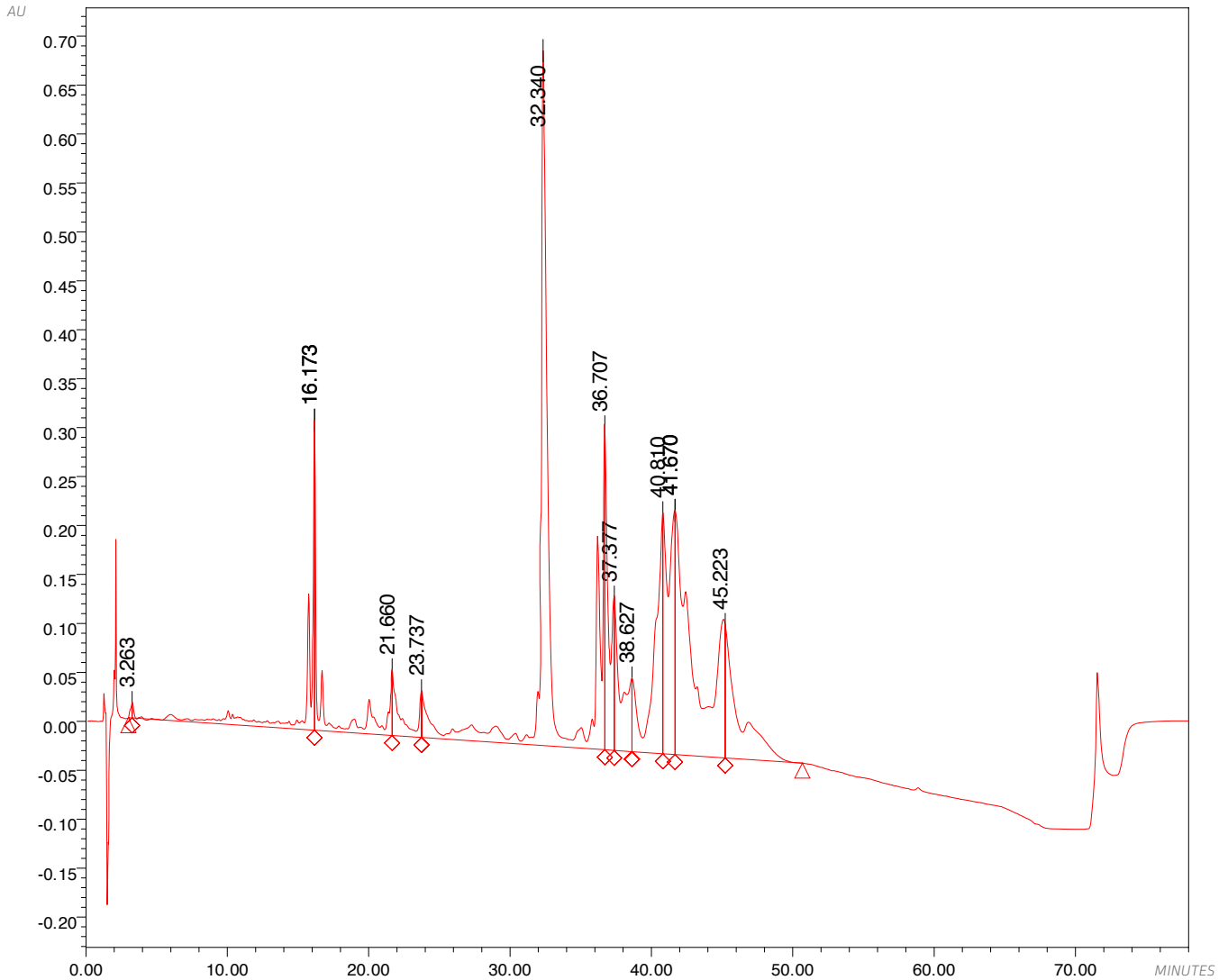
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	36	3.943	257248	38594	0.18	1.42
02	36	20.922	49099049	854102	35.23	31.41
03	36	23.113	15870	79361	0.01	2.92
04	36	25.357	21304582	539248	15.28	19.83
05	36	25.357	35530417	539248	25.49	19.83
06	36	28.050	65804	164730	0.05	6.06
07	36	28.050	5657384	164730	4.06	6.06
08	36	29.267	5429936	115260	3.90	4.24
09	36	30.947	21460	107324	0.02	3.95
10	36	37.626	22003408	116815	15.79	4.30



— AL_LC_CROPS3230 212.160; Vial 37; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 09:17:33 GMT

PEAK RESULTS

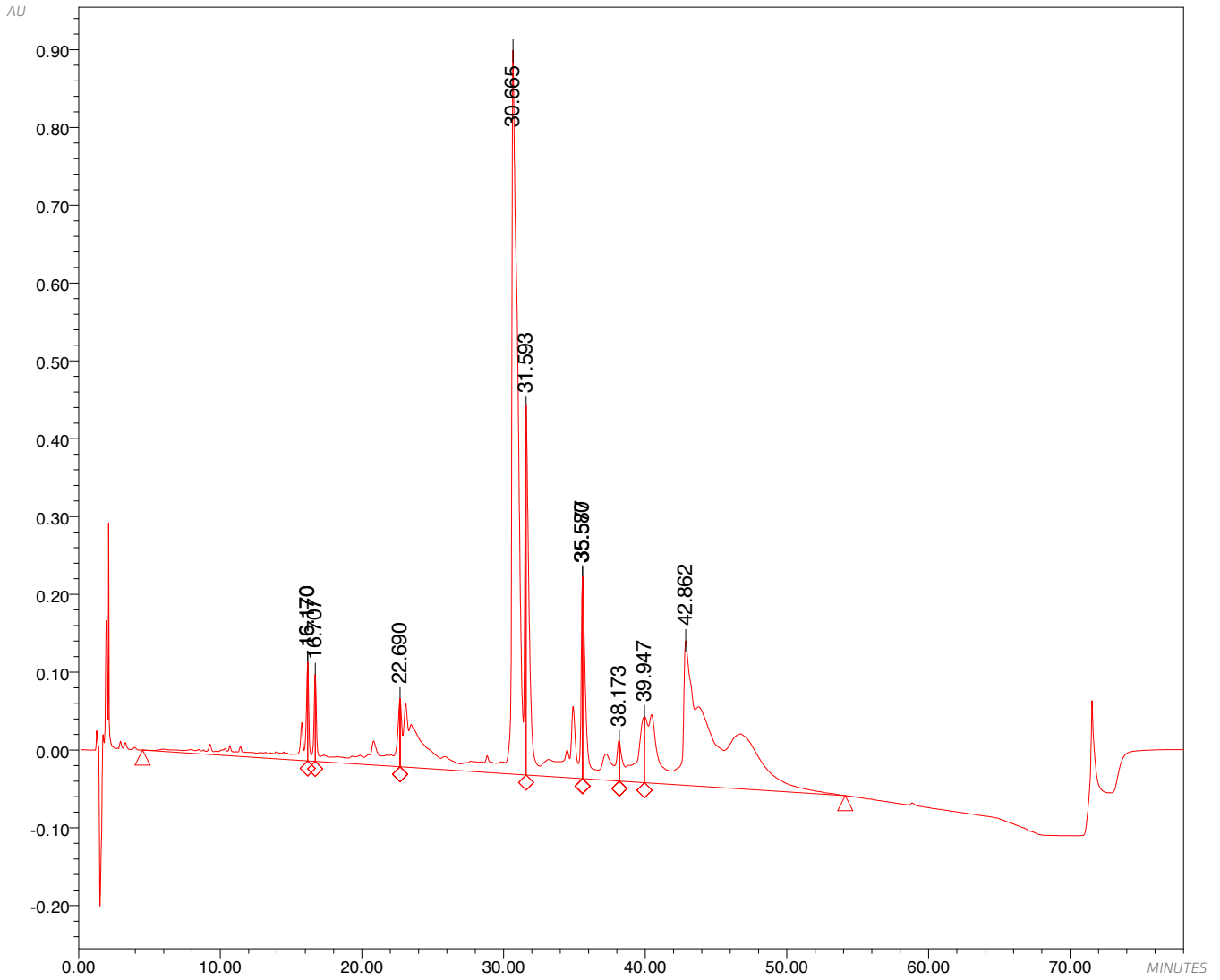
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	37	16.151	13210856	13210856	9.26	19.50
02	37	18.617	4031262	4031262	2.82	3.91
03	37	21.717	8283	8283	0.01	2.35
04	37	23.663	4540079	4540079	3.18	7.67
05	37	34.263	16872195	16872195	11.82	9.33
06	37	37.987	18009123	18009123	12.62	9.91
07	37	40.133	29015894	29015894	20.33	17.53
08	37	41.367	34804	34804	0.02	9.85
09	37	44.635	40264037	40264037	28.21	11.79
10	37	49.743	16751434	16751434	11.74	8.16



AL_LC_CROPS3231 0.25.090; Vial 38; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 10:37:08 GMT

PEAK RESULTS

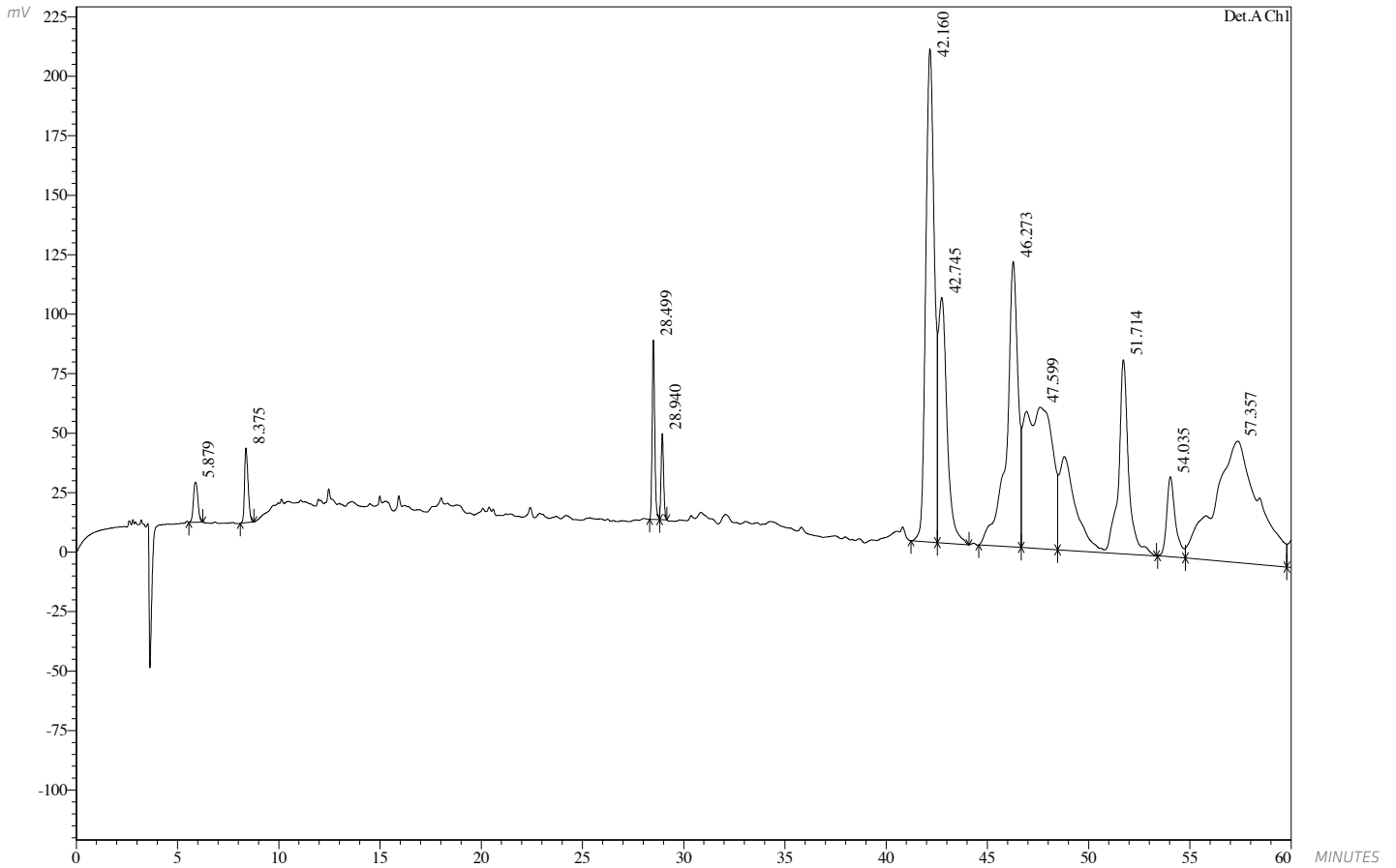
	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	38	3.263	124141	15743	0.11	0.54
02	38	16.173	6622243	316725	5.96	10.85
03	38	16.173	5522944	316725	4.97	10.85
04	38	21.660	2430197	67109	2.19	2.30
05	38	23.737	9501	47522	0.01	1.63
06	38	32.340	32708810	709905	29.45	24.32
07	38	36.707	6374543	332125	5.74	11.38
08	38	37.377	5394699	157156	4.86	5.38
09	38	38.627	15007	75046	0.01	2.57
10	38	40.810	10081037	245999	9.08	8.43
11	38	41.670	10623437	249359	9.56	8.54
12	38	41.670	22520593	249359	20.27	8.54
13	38	45.223	8648994	136356	7.79	4.67



— AL_LC_CROPS3232 711.180; Vial 39; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 11:56:43 GMT

PEAK RESULTS

	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	39	16.170	4829432	126764	4.46	4.70
02	39	16.170	1389608	126764	1.28	4.70
03	39	16.707	5190422	111604	4.79	4.14
04	39	22.690	17462	87344	0.02	3.24
05	39	30.665	39350796	930388	36.34	34.50
06	39	31.593	12944717	474184	11.95	17.58
07	39	35.577	51862	259400	0.05	9.62
08	39	35.580	6023685	259217	5.56	9.61
09	39	38.173	10154	50890	0.01	1.89
10	39	39.947	3702635	84697	3.42	3.14
11	39	42.862	34781596	185828	32.12	6.89



(HPLC Column : EC 250/4.6 NUCLEOSIL 300-6 C18 REF 720065.46)

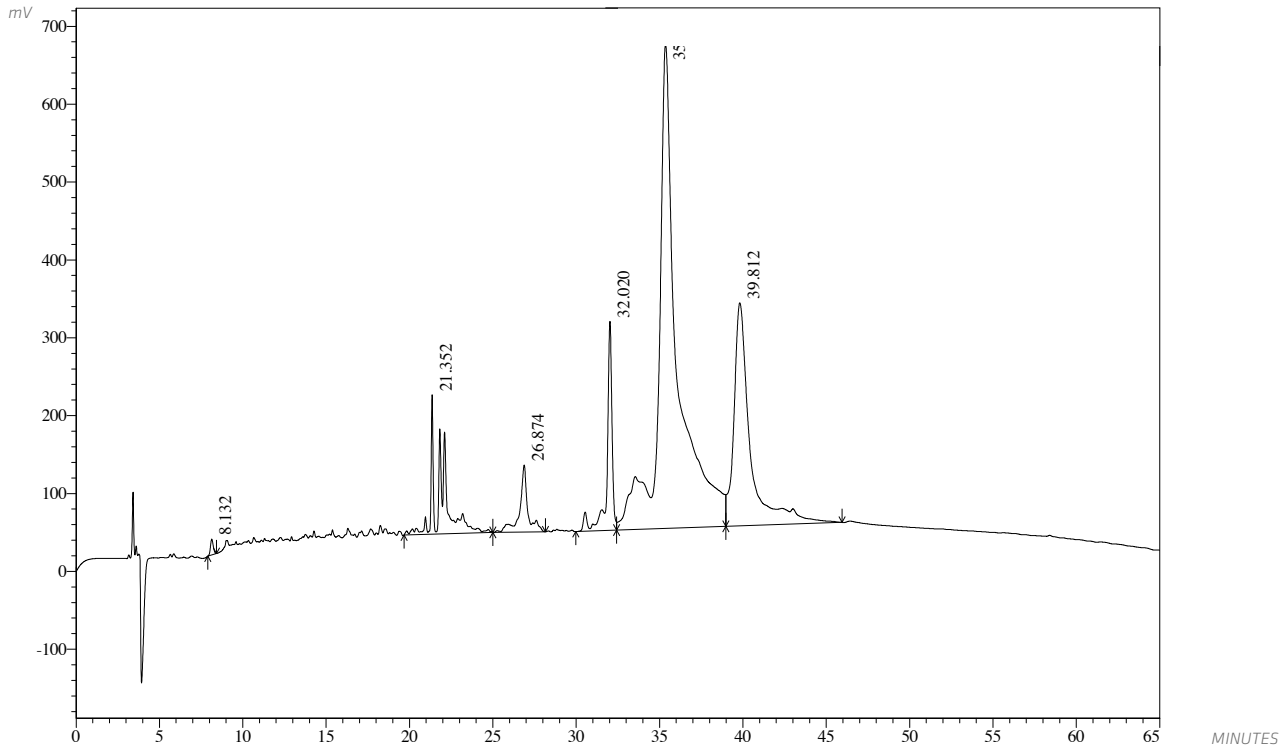
1 Det.A Ch1 / 214nm

— Agkistrodon contortrix contortrix 215.051 L1202 280515.lcd; Vial 3; Ch1: 214 nm; 28/05/2015 18:45:49

PEAK TABLE

Detector A Ch1 214nm

VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
1	5.879	258273	16915	0.665	2.003
2	8.375	380553	31394	0.980	3.718
3	28.499	668669	75434	1.722	8.934
4	28.940	313447	36280	0.807	4.297
5	42.160	6144616	207388	15.825	24.561
6	42.745	3150915	103225	8.115	12.225
7	46.273	4734714	120058	12.194	14.219
8	47.599	5621703	59510	14.478	7.048
9	51.714	5091589	81573	13.113	9.661
10	54.035	1004605	33630	2.587	3.983
11	57.357	7668779	51076	19.750	6.049
12	61.490	3790684	27898	9.763	3.304
Total		38828546	844381	100.000	100.000



(HPLC Column : LichroCART 250-4 PurospherSTAR RP-18 (5µm) Column n°: 114562)

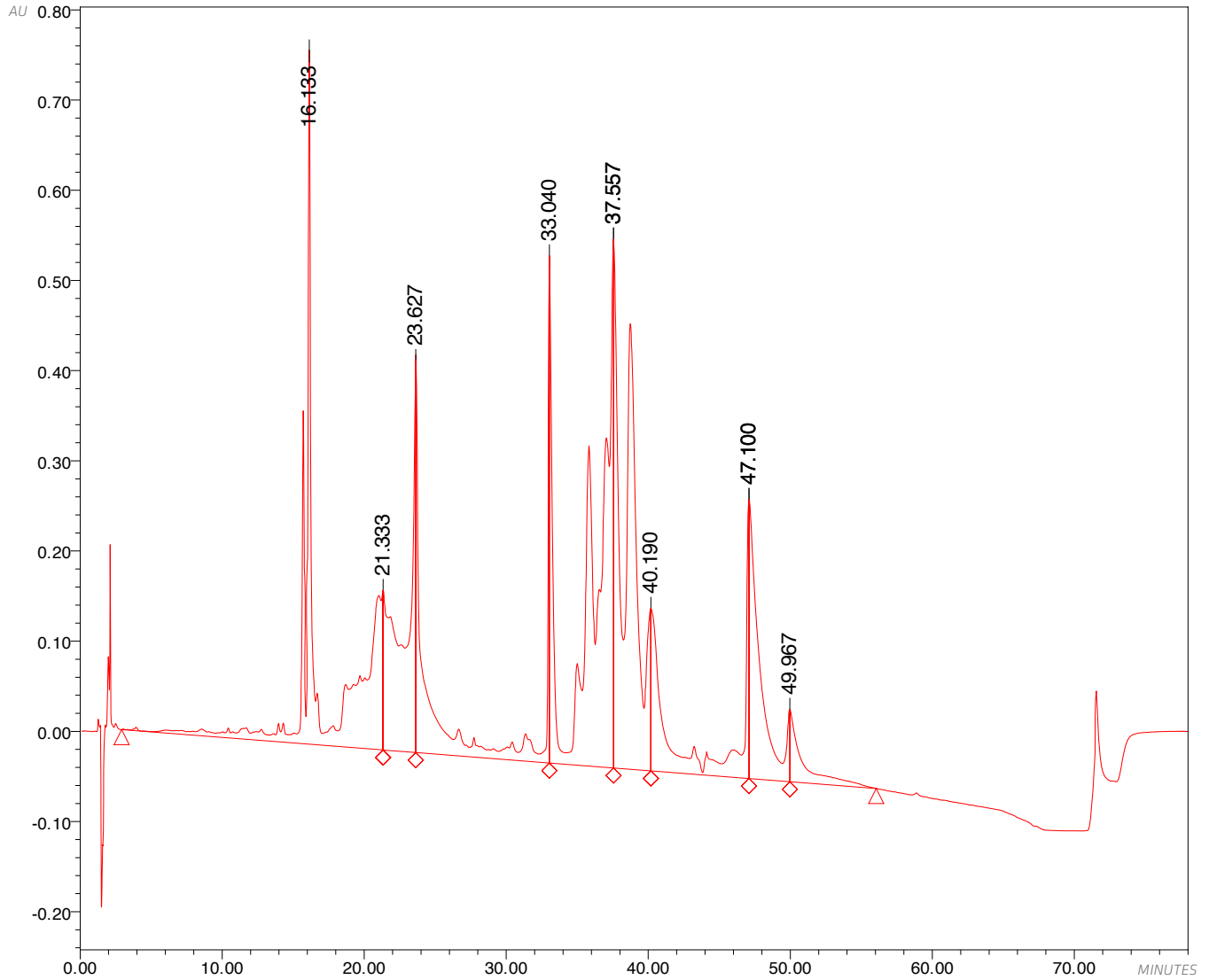
1 Det.A Ch1 / 214nm
— 411.150.lcd; Vial 34; Ch1: 214 nm; 26/07/2013 23:16:09

PEAK TABLE
Detector A Ch1 214nm

VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
1	8.132	239752	20453	0.284	1.398
2	21.352	6278668	178873	7.447	12.227
3	26.874	2909047	86134	3.451	5.888
4	32.020	5658839	268391	6.712	18.347
5	35.358	49617842	622375	58.854	42.544
6	39.812	19602833	286665	23.252	19.596
Total	46.273	84306980	1462891	100.000	100.000

CERTIFICATE OF ANALYSIS

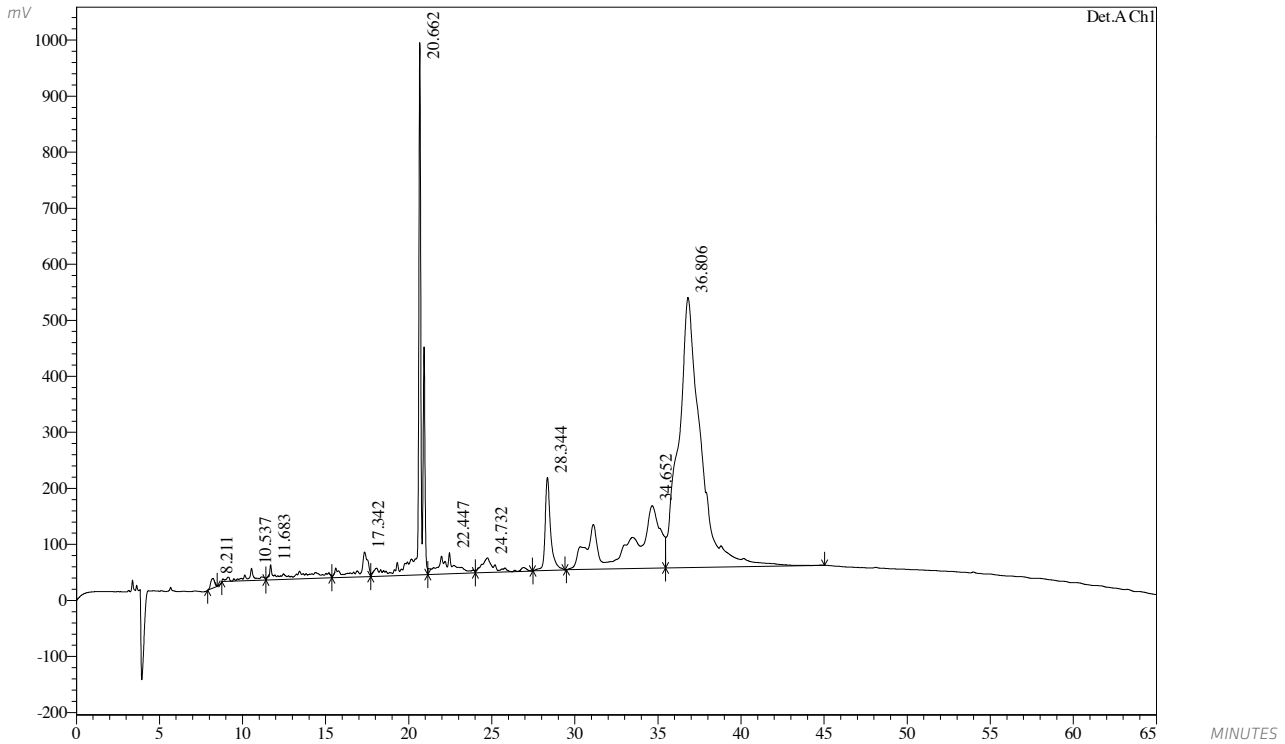
Venom: *Lachesis muta muta*
Batch: 618.001



— AL_LC_CROPS3235 618.001; Vial 42; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 15:55:22 GMT

PEAK RESULTS

	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	42	16.133	36841431	769858	18.31	19.27
02	42	21.333	35390	176976	0.02	4.43
03	42	23.627	20575767	434631	10.23	10.88
04	42	33.040	19715457	562221	9.80	14.07
05	42	37.557	47074475	586547	23.40	14.68
06	42	37.557	39528436	586547	19.65	14.68
07	42	40.190	36013	180067	0.02	4.51
08	42	47.100	16677901	309467	8.29	7.74
09	42	47.100	15891488	309467	7.90	7.74
10	42	49.967	4826289	80297	2.40	2.01



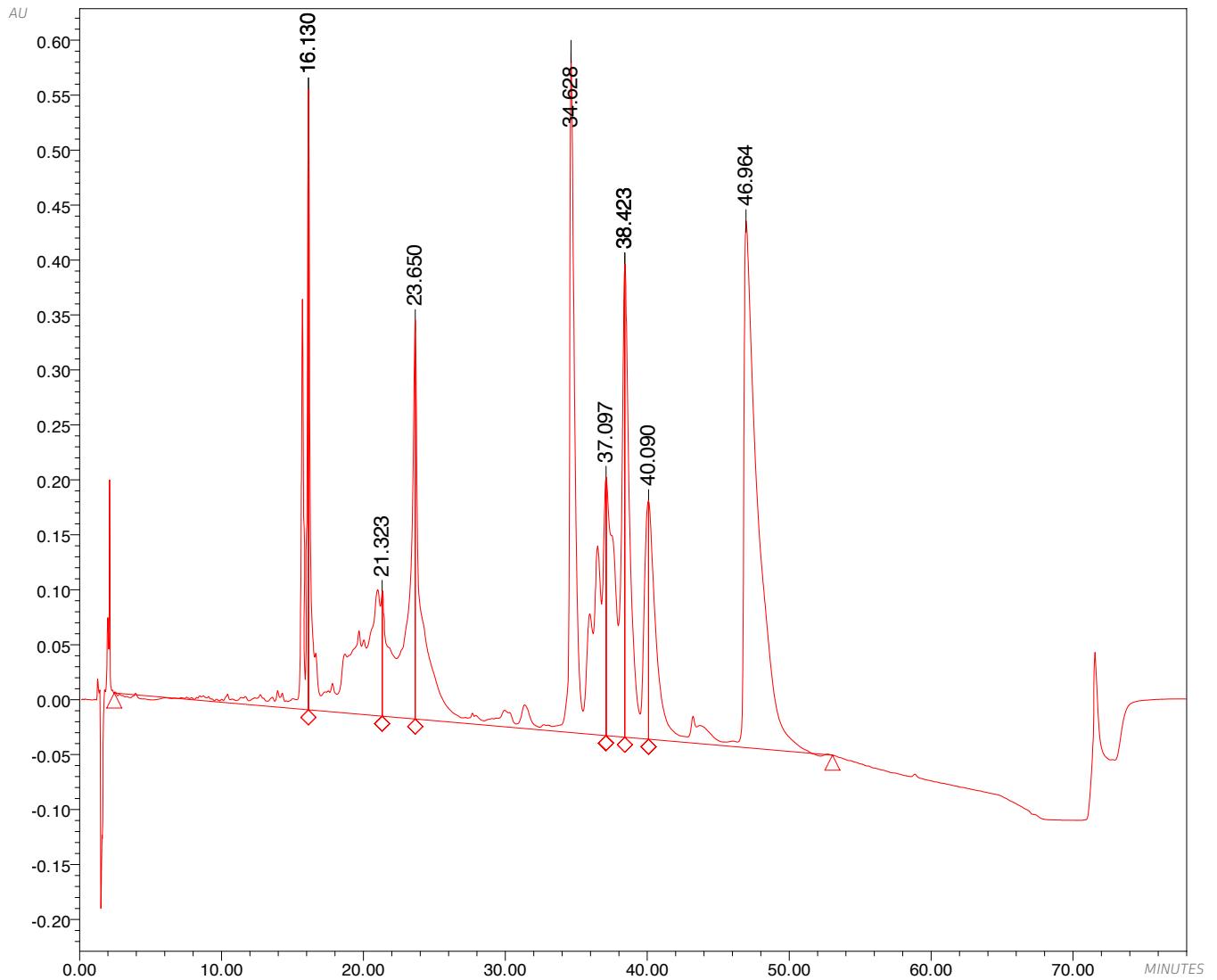
(HPLC Column : LichroCART 250-4 PurospherSTAR RP-18 (5µm) Column n°: 114562)

1 Det.A Ch1 / 214nm
— 908.011.lcd; Vial 14; Ch1: 214 nm; 29/01/2013 20:55:34

PEAK TABLE

Detector A Ch1 214nm

VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
1	8.211	279273	17137	0.334	0.910
2	10.537	749028	21746	0.897	1.155
3	11.683	1764953	26952	2.113	1.431
4	17.342	1696157	43986	2.031	2.336
5	20.662	12628150	949544	15.119	50.424
6	22.447	2141659	37660	2.564	2.000
7	24.732	1459883	26347	1.748	1.399
8	28.344	3759020	166006	4.501	8.816
9	34.652	14962221	111668	17.914	5.930
10	36.806	44082260	482070	52.779	25.600
Total		83522602	1883114	100.000	100.000



— AL_LC_CROPS3236 518.001; Vial 43; Injection 1; Channel 2998 Ch1 214nm@1.2nm; Date Acquired 16/11/2010 17:14:57 GMT

PEAK RESULTS

	VIAL	RETENTION TIME (MIN.)	AREA	HEIGHT	% AREA	% HEIGHT
01	43	16.130	10144938	564627	6.58	14.06
02	43	16.130	18846199	564627	12.23	14.06
03	43	21.323	22653	113399	0.01	2.82
04	43	23.650	12993683	362938	8.43	9.03
05	43	34.628	39574981	619553	25.67	15.42
06	43	37.097	46995	235003	0.03	5.85
07	43	38.423	15415698	430462	10.00	10.72
08	43	38.423	14320135	430462	9.29	10.72
09	43	40.090	43355	216786	0.03	5.40
10	43	46.964	42736830	479273	27.72	11.93