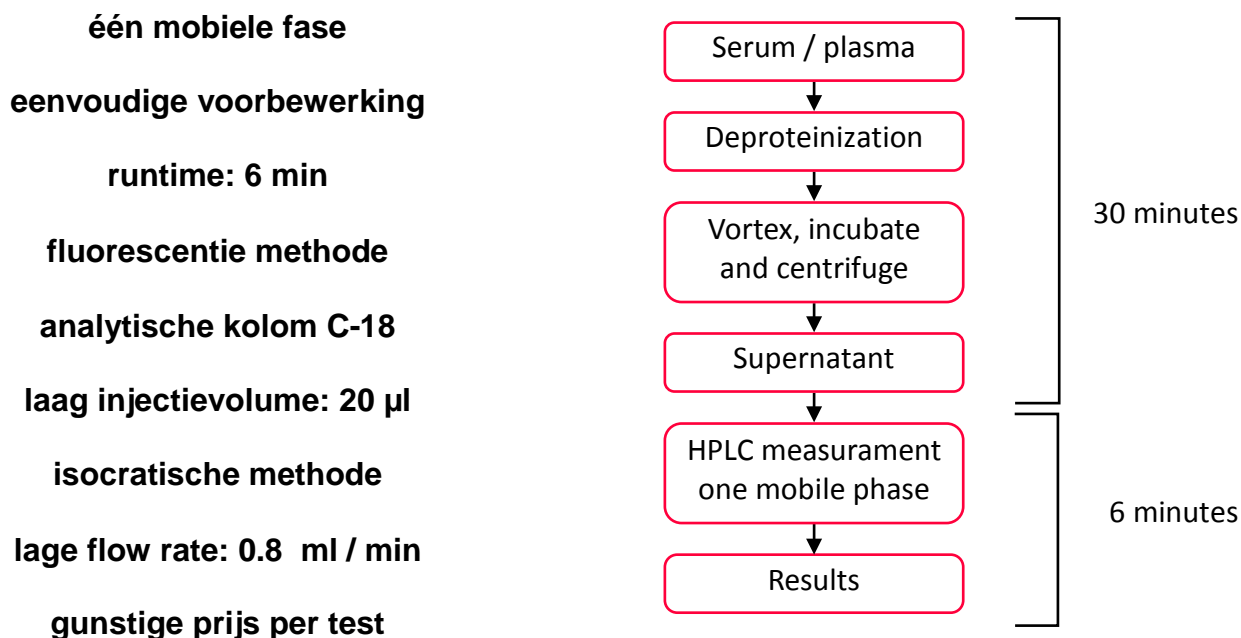


VITAMIN A & E IN SERUM OF PLASMA M.B.V. HPLC EN FLUORESCENTIE DETECTIE

Products	Product no.	Quantity
Vitamin A & E Reagent Set	2795	50 – 70 Determinations
Vitamin A & E Calibration Standard	2838	1 x 2 ml
Vitamin A & E Control Low Level	2840	1 x 1 ml
Vitamin A & E Control Normal Level	2841	1 x 1 ml
Vitamin A & E Control High Level	2842	1 x 1 ml

In een half uur van monster naar analyse uitslagen

Vraag meer informatie en/of testverpakking aan.

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 The Netherlands

DETERMINATION OF VITAMIN A & E BY HPLC-FD IN SERUM OR PLASMA
ASSAY PRINCIPLE:

After protein precipitation and extraction retinol and α -tocopherol can be determined fluorometric on an isocratic HPLC system, with separation from interferences of the analytes by using an Analytical column Polaris C18-A 5-C18, 5 μ m, 100 x 3 mm. This approach is sensitive and simple. As these vitamins are detected at different wavelengths, a detector with programmable wavelength switching is very useful for simultaneous analysis of Vitamin A and Vitamin E in a single HPLC run. In the first run we measure the fluorescence (λ excitation 315 nm; λ emission 455 nm) which is proportional to Vitamin A concentration and after 3.5 minutes, we measure the fluorescence again (λ excitation 295 nm, λ emission 340 nm) which is proportional to Vitamin E concentration in the sample.

SAMPLING:

Whole blood, Serum or Plasma

ANALYTICAL CONDITIONS:

Column : Polaris C18A, 5 μ m packing
 Flow Rate : 0.8 ml/min
 Temperature : 25 °C
 Detection : Fluorescence
 : Vitamin A: 0 – 3.5 min, (excitation 370 nm, emission 455 nm)
 : Vitamin E: 3.5 – 7 min, (excitation 295 nm, emission 340 nm)
 Injection volume : 20 μ l
 Runtime : Samples 7 min.

EXPECTED VALUES:

Retinol:	1 – 6 years:	0.20 – 0.80 mg/l	0.70 – 2.79 μ mol/l
	7 years & older:	0.30 – 1.20 mg/l	1.05 – 4.19 μ mol/l
α -Tocopherol:	Premature infants:	0.5 – 3.5 mg/l	1.16 – 8.12 μ mol/l
	0 – 1 month:	1.0 – 3.5 mg/l	2.32 – 8.12 μ mol/l
	2 – 5 month	2.0 – 6.0 mg/l	4.64 – 13.92 μ mol/l
	6 month – 1 year:	3.5 – 8.0 mg/l	8.12 – 18.56 μ mol/l
	2 – 12 years	5.5 – 9.0 mg/l	12.76 – 20.88 μ mol/l
	13 years & older:	5.5 – 18.0 mg/l	12.76 – 41.76 μ mol/l

PERFORMANCE:

Linearity:		Recovery	
Vitamin A	Up to 2.8 mg/L (8.8 μ mol/l)	Retinol	added 0.50 mg/l 102.1 %
Vitamin E	Up to 20 mg/l (46.4 μ mol/l)		added 1.0 mg/l 99.6 %
			added 1.5 mg/l 97.2 %
		α -Tocopherol	added 8.0 mg/l 95.5 %
			added 16.0 mg/l 86.1 %
			added 24.0 mg/l 74.6 %

Within run precision:

Test	n	Mean (mg/l)	S.D. (mg/l)	VC (%)
Retinol (plasma)	10	0.73	0.018	2.54
Retinol (serum)	10	0.60	0.015	2.54
α -Tocopherol (plasma)	10	11.31	0.271	2.40
α -Tocopherol (plasma)	10	14.14	0.338	2.40

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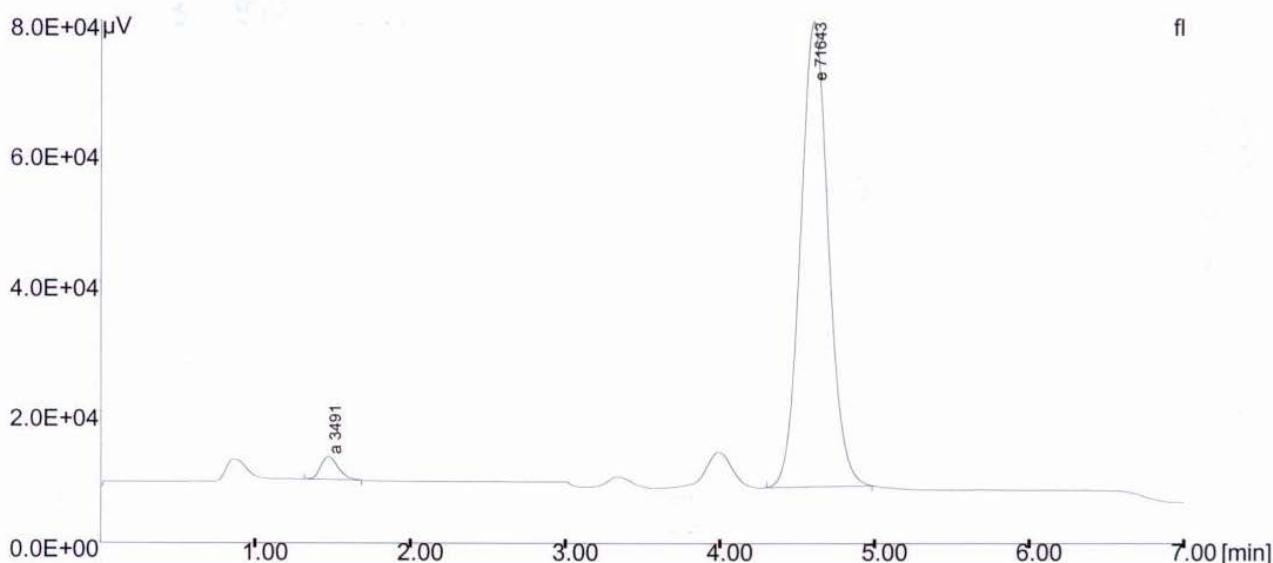
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Chromatogram Vitamin A & E Combi - Analyse

-1- CAL_012.CH1 : Vitamin A & E Calibration Standard, 2838
 : Vitamin A = 0,60 mg / liter of 2,13 μ mol / liter
 : Vitamin E = 11,31 mg / liter of 26,23 μ mol / liter

Vitamin A/E


File name : CAL_012.CH1
 Info :

Vial # = 1 Rack # = 1
 Acqu. Date :16-May-11 10:51:26
 Curr. Date :16-May-11 12:12:02
 User : SW
 Audit Trail Functions :

Data Type : Raw Data
 Control Method :

#	Name	Rt	Height	Area	Asymmetry	Plates
1	a	1.48	3491	27437.750	1.23	803.1
2	e	4.61	71643	898036.000	1.10	3195.2

Total Sample Weight = 0.00000 mg

Injection Volume = 20.00 μ l

Administrator Validation = SW

Vraag meer informatie en/of testverpakking aan.

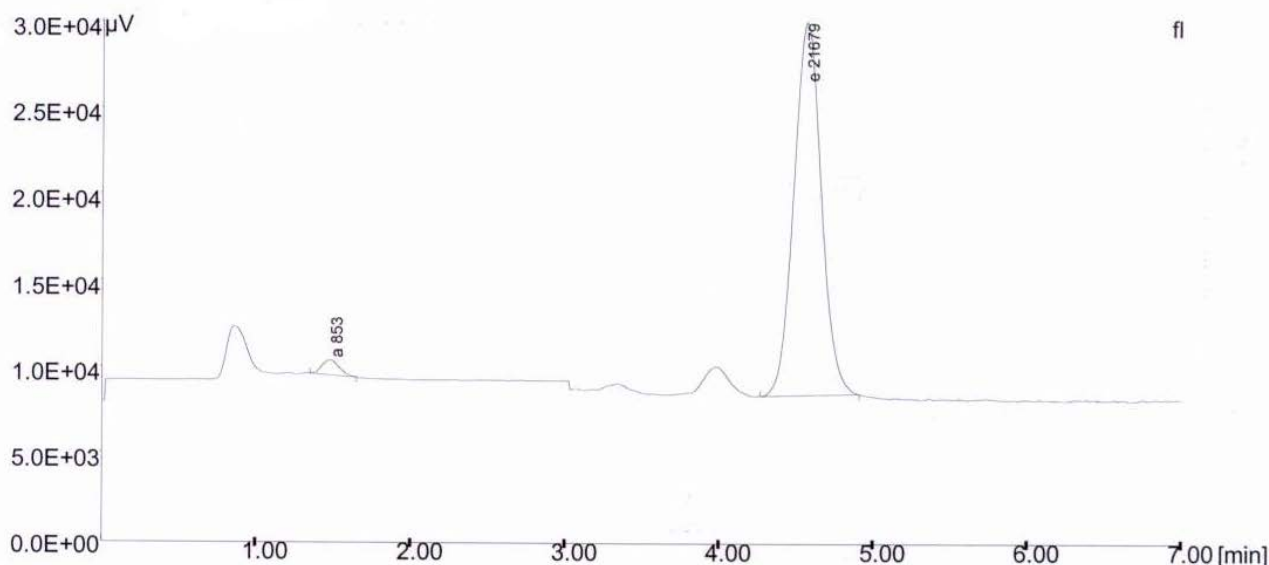
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Chromatogram Vitamin A & E Combi - Analyse

-2- L2_014.CH1 : Vitamin A & E Control, Low Level, 2840
 : Vitamin A = 0,15 mg / liter of 0,54 μ mol / liter
 : Vitamin E = 3,53 mg / liter of 8,20 μ mol / liter

Vitamin A/E


File name : L2__014.CH1
 Info :

Vial # = 3 Rack # = 1
 Acqu. Date :16-May-11 11:08:30
 Curr. Date :16-May-11 12:13:04
 User : SW
 Audit Trail Functions :

Data Type : Raw Data
 Control Method :

#	Name	Rt	Height	Area	Asymmetry	Plates
1	a	1.48	853	6584.000	1.00	796.5
2	e	4.57	21679	269181.000	1.10	3161.8

Total Sample Weight = 0.00000 mg

Injection Volume = 20.00 μ l

Administrator Validation = SW

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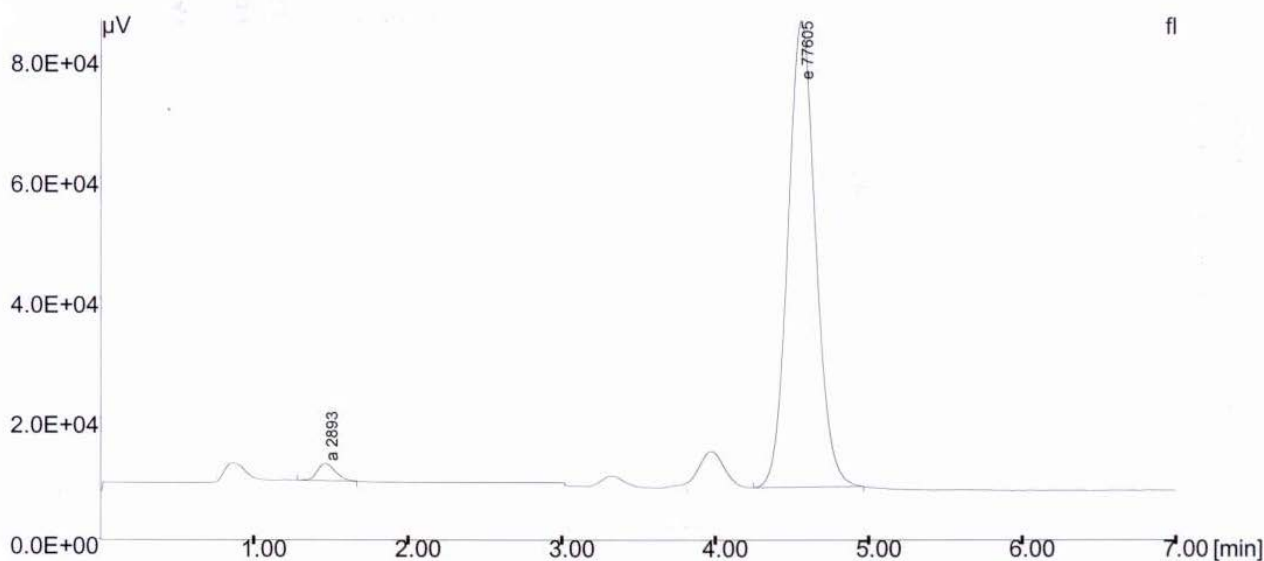
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Chromatogram Vitamin A & E Combi - Analyse

-3- N2_016.CH1 : Vitamin A & E Control, Normal Level, 2841
 : Vitamin A = 0,52 mg / liter of 1,82 μ mol / liter
 : Vitamin E = 12,44 mg / liter of 28,88 μ mol / liter

Vitamin A/E


File name : N2_016.CH1
 Info :

Vial # = 5 Rack # = 1
 Acqu. Date : 16-May-11 11:25:30
 Curr. Date : 16-May-11 12:14:02
 User : SW
 Audit Trail Functions :

Data Type : Raw Data
 Control Method :

#	Name	Rt	Height	Area	Asymmetry	Plates
1	a	1.47	2893	23529.500	1.23	758.3
2	e	4.56	77605	971293.250	1.10	3135.6

Total Sample Weight = 0.00000 mg

Injection Volume = 20.00 μ l

Administrator Validation = SW

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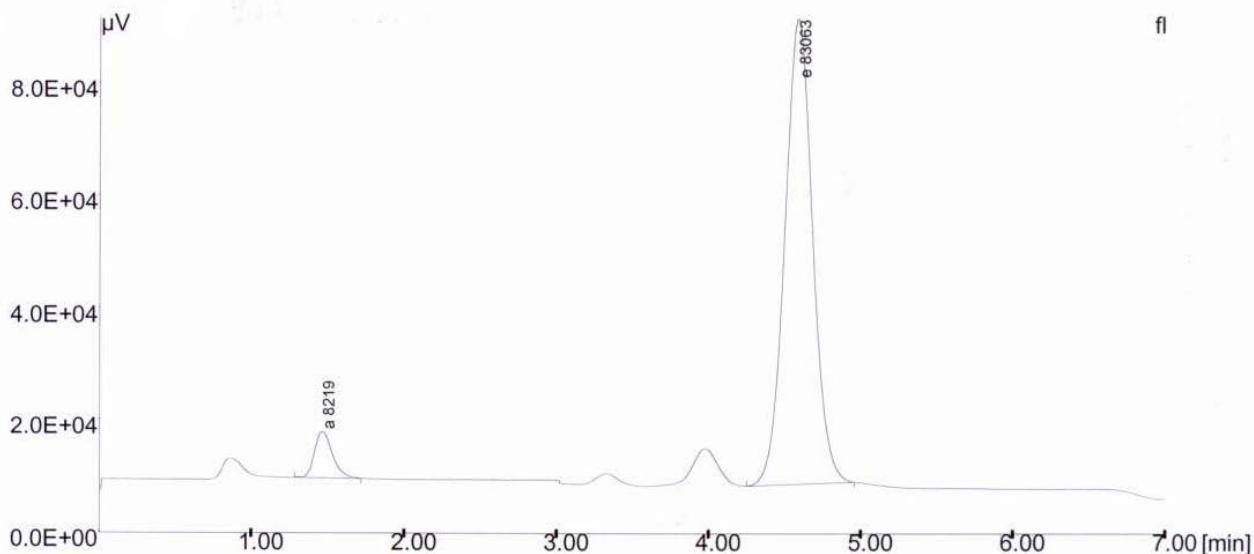
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Chromatogram Vitamin B6 & B1 Combi - Analyse

-4- HN2_021.CH1 : Vitamin A & E Control, High Level, 2842
: Vitamin A = 1,50 mg / liter of 5,34 μ mol / liter
: Vitamin E = 13,26 mg / liter of 30,83 μ mol / liter

Vitamin A/E



File name : HN2_021.CH1
Info :


Vial # = 10 Rack # = 1
Acqu. Date : 16-May-11 12:07:58
Curr. Date : 16-May-11 12:16:28
User : SW
Audit Trail Functions :

Data Type : Raw Data
Control Method :

#	Name	Rt	Height	Area	Asymmetry	Plates
1	a	1.47	8219	66746.250	1.42	780.4
2	e	4.59	83063	1056959.500	1.05	3098.4

Total Sample Weight = 0.00000 mg

Injection Volume = 20.00 μ l

Administrator Validation = 

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