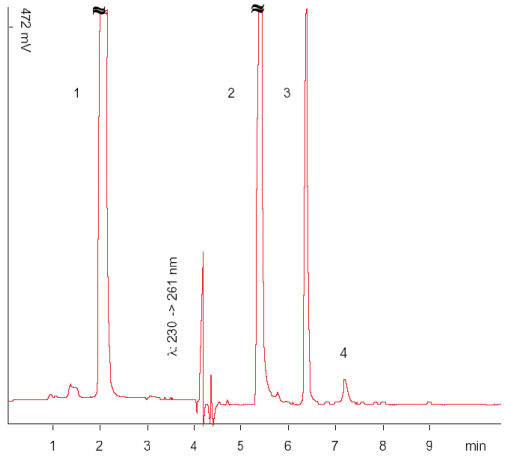
Application – 1

Page

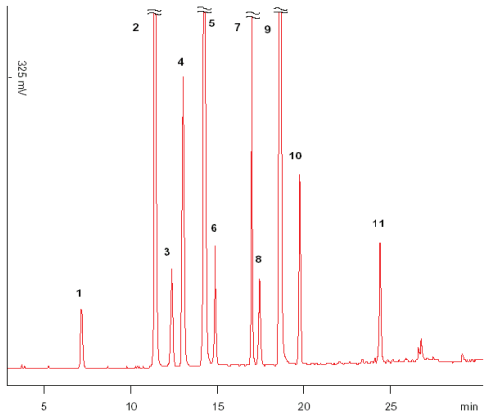
Cold medicine
ProntoSIL Eurobond C18 5 µm

Part number	1204F181PS050	Detection	UV 230nm, 0-240 s; UV 261nm, 240-720 s
Dimension	125 x 4.0 mm	Temperature	20 °C
Eluent	A: 5mM Li_2SO_4 in H_2O4; pH 2.1 B:ACN/50mM H_3PO_4	Injection	3 µl
Gradient	0%B, 0-120 s; 0_12% B, 120-184 s; 12-17% B, 184-500 s; 17-39% B, 500-720 s	Sample	1 : Ascorbic acid 2 : Paracetamol 3 : Coffein 4 : Chlorphenamin
Flow	1 ml/min		



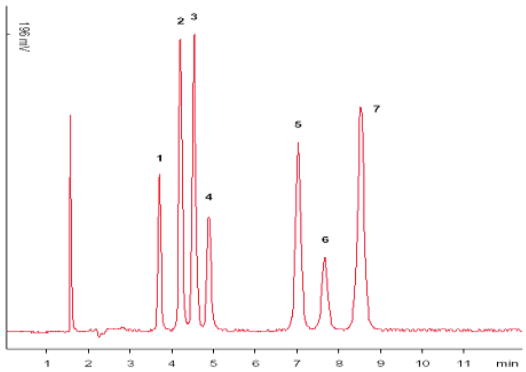
Phenol mixture EPA 604/625
ProntoSIL EnviroPHE

Part number	1246F440PS30	Sample	Supelco Calibration Standard (P/N: 4-8859) 1: Phenol 2: 4-Nitrophenol 3: 2.4-Dinitrophenol 4: 2-Chlorophenol 5: 2-Nitrophenol 6: 2.4-Dinmethylphenol 7: 4.6-Dinitro-o-Cresol 8: 2.4-Dichlorophenol 9: 4-Chloro-m-Cresol 10: 2.4.6-Trichlorophenol 11: Pentachlorophenol
Dimension	125 x 4.6 mm		
Eluent	A: H_2O/1% HAc B: MeOH/1% HAc		
Gradient	5-100% B, 0-30min		
Flow	1 ml/min		
Detection	UV 280 nm		
Temperature	25 °C		
Injection	2 µl		



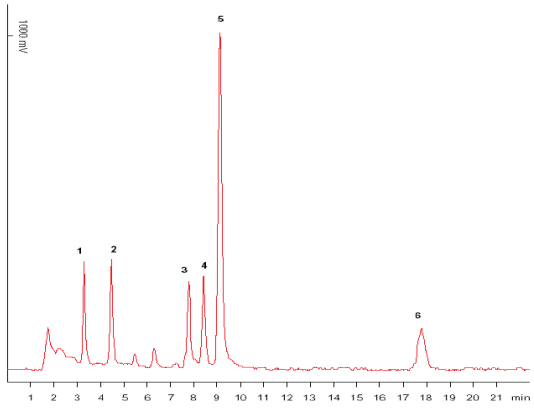
Tricyclic Antidepressants I
ProntoSIL 120-5-CN

Part number	2546F200PS050	Injection	5 µl
Dimension	250 x 4.6 mm	Concentration	50 ppm each
Eluent	A: 25mM K_2HPO_4 (pH 7.1) B: MeOH/ACN (15/65) 25% A, 75% B	Sample	1 : Trimipramine 2 : Doxepin 3 : Amitriptyline 4 : Imipramine 5 : Nortriptyline 6 : Desipramine 7 : Protriptyline
Flow	1 ml/min		
Detection	UV 254nm		
Temperature	40 °C		



Fat soluble Vitamins II
ProntoSIL 120-3-C18 SH

Part number	2503F180PS030	Temperature	20 °C
Dimension	250 x 3.0 mm	Injection	5 µl
Eluent	MeOH	Concentration	50-300 ppm each
Flow	1 ml/min	Sample	1 : Vitamin A 2 : Vitamin A acetate 3 : Vitamin D_2 4 : Vitamin D_3 5 : Vitamin E 6 : Vitamin K_1
Detection	Evap. Light Scattering Detector (DDL 31) PMT: 600, T: 33 °C		

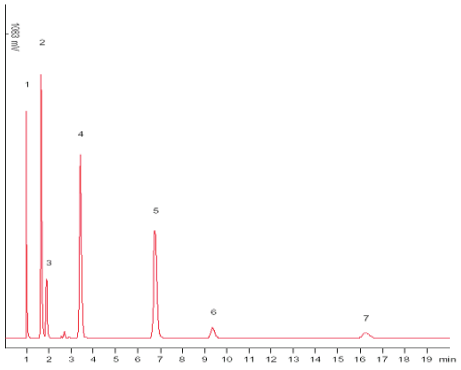


Engelhardt test for RP phases
ProntoSIL Eurobond C18 5 µm

Part number	1204F181PS050
Dimension	125 x 4 mm
Eluent	H_2O/MeOH 51/49 (w/w)
Flow	1 ml/min
Detection	UV 254nm
Temperature	40 ℃
Injection	5 µl

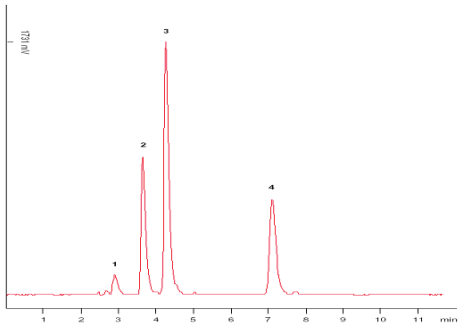
Sample

Nr.	Ret.(min)	TP	TP/m	Asym.	Name
1	0.96	-	-	-	Uracil
2	1.62	6756	54048	1.49	Aniline
3	1.84	7117	56937	1.33	Phenol
4	3.37	7433	59461	1.34	p-Ethylaniline
5	6.75	9450	75599	1.12	N.N-Dimethyl-aniline
6	9.33	10380	83037	1.13	Toluene
7	16.24	10357	82856	1.05	Ethylbenzene



Antirheumatic bath ingredient
ProntoSIL Eurobond C18 5 µm

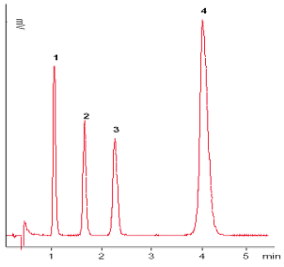
Part number	2504F181PS050
Dimension	250 x 4 mm
Eluent	H_2O/MeOH 30/70 (w/w). 0.1% acetic acid
Flow	0.9 ml/min
Detection	UV 254nm
Temperature	20 ℃
Injection	20 µl
Sample	1 : Camphor 2 : Nicotinic acid methyl easter 3 : Nicotinic acid benzyl easter 4 : Ethylenegly colmonosalicylate



High Speed Separation of Catecholamines

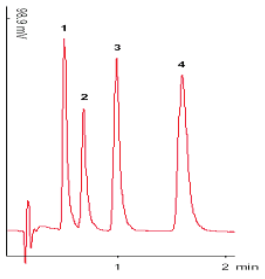
ProntoSIL 120-3-C18 AQ

Part number	0404F184PS030
Dimension	33 x 4 mm
Eluent	CAT-A-Phase
Flow	1.0 ml/min
Detection	Coulometric
Temperature	30 ℃
Injection	5 µl
Sample	1 : Norepinephrine 2 : Epinephrine 3 : Dihydroxybenzylamine 4 : Dopamine



ProntoSIL 120-3-C18 AQ

Part number	0203F184PS030
Dimension	25 x 3 mm
Eluent	ADAM-B-Phase
Flow	0.95 ml/min
Detection	Coulometric
Temperature	28 ℃
Injection	1 µl
Sample	1 : Norepinephrine 2 : Epinephrine 3 : Dihydroxybenzylamine 4 : Dopamine

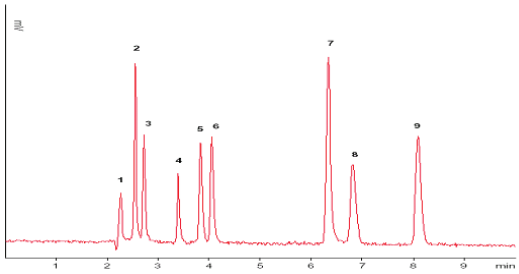


Organic Acids I
ProntoSIL 120-3-C18 AQ

Part number	2503F184PS030
Dimension	250 x 3.0 mm
Eluent	50 mM H_3PH_4
Flow	0.7 ml/min
Detection	UV 205nm
Temperature	22 ℃
Injection	5 µl

Sample

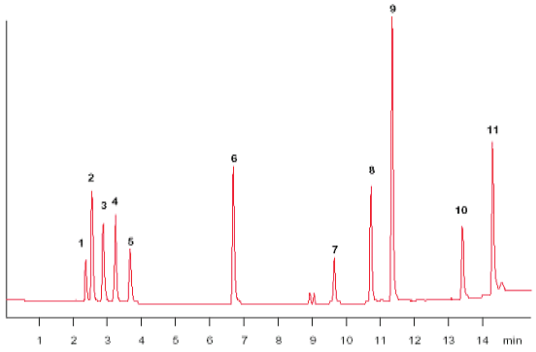
1 : Glutamic acid
2 : Oxalic acid
3 : Tartaric acid
4 : Malic acid
5 : Ascorbic acid
6 : Acetic acid
7 : Maleic acid
8 : Citric acid
9 : Fumaric acid



Organic Acids II
ProntoSIL 120-3-C18 AQ

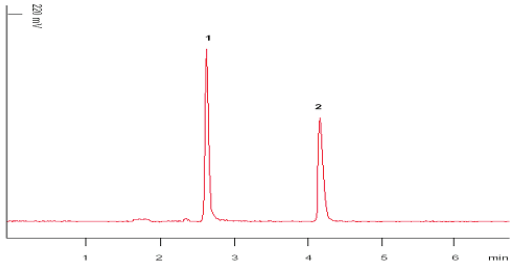
Part number	2003F184PS030
Dimension	300 x 3.0 mm
Eluent	A: H_2O/ 50 mM H_3PO_4 B: ACN/ 50mM H_3PO_4
Gradient	0-100% B, 0-20 min
Flow	0.6 ml/min
Detection	UV 215 nm
Temperature	25 °C
Injection	5 µl

Sample
1 : Oxalic acid
2 : Tartaric acid
3 : Pyridine-4-carboxylic acid
4 : Pyridine-3-carboxylic acid
5 : Lactic Acid
6 : Citric Acid
7 : Pyridine-2,6-dicarboxylic acid
8 : 4-hydroxybenzoic acid
9 : 3-Hydroxybenzoic acid
10 : Benzoic acid
11 : 2-Hydroxybenzoic acid (= Salicylic acid)



Formic Acid / Acetic Acid
ProntoSIL 120-3-C18 AQ

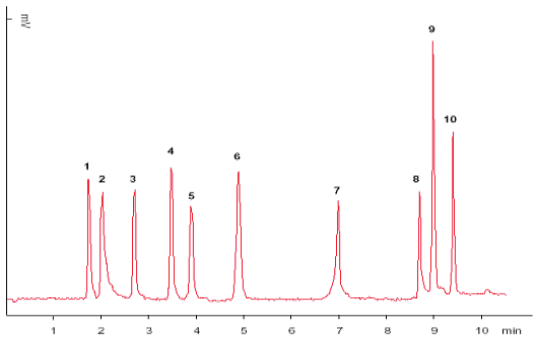
Part number	2503F184PS030
Dimension	250 x 3.0 mm
Eluent	100 mM H_3PO_4
Flow	0.7 ml/min
Detection	UV 202 nm
Temperature	22 °C
Injection	5 µl
Sample	1 : Formic acid 2 : Acetic acid



Water soluble Vitamins
ProntoSIL 120-3-C18 AQ

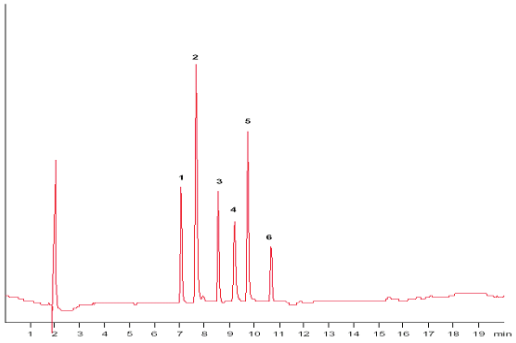
Part number	2003F184PS030
Dimension	200 x 3.0 mm
Eluent	A: H_2O/ 50 mM H_3PO_4 B: ACN
Gradient	0% B, 0-180 s; 0-30% B, 181-400 s; 30% B, 401-790 s
Flow	0.7 ml/min
Detection	UV 230 nm
Temperature	22 °C
Injection	5 µl

Sample
1 : Pyridoxamine
2 : Thiamine (Vit. B1)+impurity
3 : Ascorbic acid (Vit. C)
4 : Nicotinic acid (Niacin)
5 : Nicotinamide (Vit. B_3)
6 : Pyridoxal
7 : Pyridoxine (Vit. B_6)+impurity of Vit. B_{12}
8 : Folic acid
9 : Cyanocobalamin (Vit. B_{12})
10 : Riboflavin (Vit. B_2)



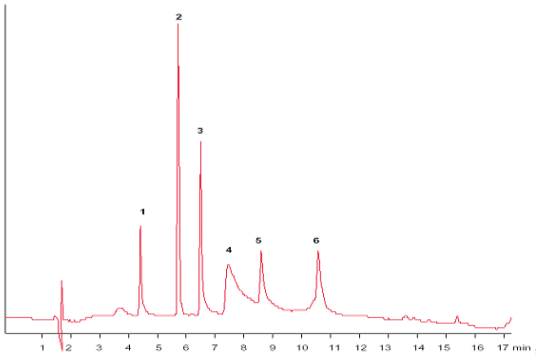
Peptides I
ProntoSIL 300-5-C18 H

Part number	2546K185PS050
Dimension	250 x 4.6 mm
Eluent	A: H_2O/ 0.1% TFA B: ACN/ H_2O, 70/30 (v/v) 0.1%TFA
Gradient	20-100% B, 0-30 min
Flow	1.5ml/min
Detection	UV 220 nm
Temperature	30 °C
Injection	5 µl
Sample	1 : Oxytocin 2 : Bradykinin 3 : Angiotensin II 4 : Eledoisin 5 : Neurotensin 6 : Angiotensin I



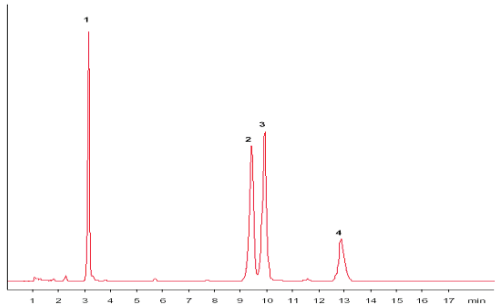
Proteins I
ProntoSIL 300-5-C18 H

Part number	2546K185PS050	Injection	5 µl
Dimension	250 x 4.6 mm	Sample	1 : Ribonuclease A 2 : Insulin, bovine 3 : Lysozyme 4 : BSA 5 : Myoglobin 6 : Ovalbumin
Eluent	A: H_2O/ 0.1% TFA B: ACN/ H_2O, 95/5 (v/v) 0.1% TFA		
Gradient	25-80% B, 0-17min		
Flow	1.5 ml/min		
Detection	UV 220 nm		
Temperature	30 ℃		



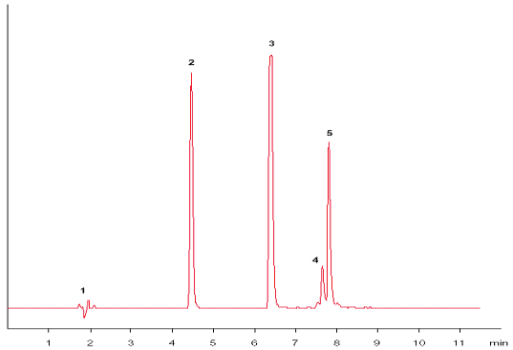
Fat soluble Vitamins I
ProntoSIL 120-3-C18 H

Part number	2003F185PS030	Sample	1 : Vitamin A 2 : Vitamin D2 3 : Vitamin D3 4 : α - Tocopherol
Dimension	200 x 3.0 mm		
Eluent	Acetonitrile		
Flow	1 ml/min		
Detection	UV 280 nm		
Temperature	30 ℃		
Injection	5 µl		



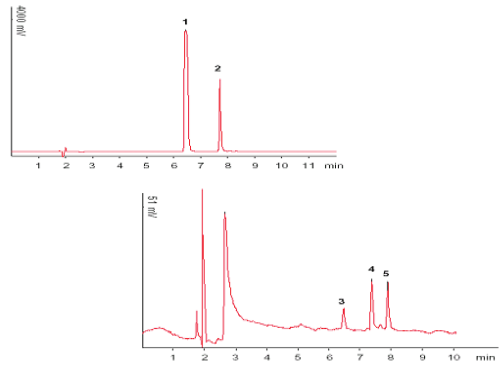
Insulin Derivatives I
ProntoSIL 300-5-C18 H

Part number	2546K185PS050	Temperature	30 ℃
Dimension	250 x 4.6 mm	Injection	5 µl
Eluent	A: H_2O/ 0.1% TFA B: ACN/ H_2O, 95/5 (v/v) 0.1% TFA	Sample	1 : Protamine Sulfate 2 : Phenol 3 : Cresol 4 : Insulin H 5 : Protamine insulin
Gradient	25-80% B, 0-17min		
Flow	1.5 ml/min		
Detection	UV 220 nm		



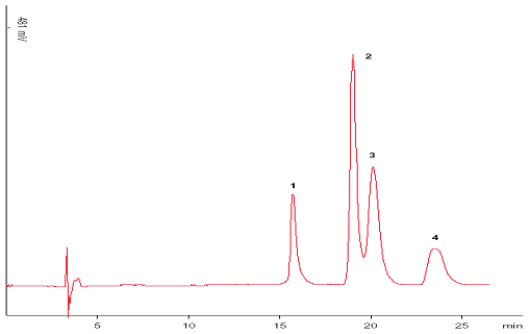
Insulin Derivatives II
ProntoSIL 300-5-C18 H

Part number	2546K185PS050	Temperature	30 ℃
Dimension	250 x 4.6 mm	Injection	5 µl
Eluent	A: H_2O/ 0.1% TFA B: ACN/ H_2O, 95/5 (v/v) 0.1% TFA	Sample	1 : Cresol 2 : Insulin H 3 : Insulin Chain A, oxidized 4 : Insulin, bovine 5 : Insulin Chain B, oxidized
Gradient	25-80% B, 0-17min		
Flow	1.5 ml/min		
Detection	UV 220 nm		



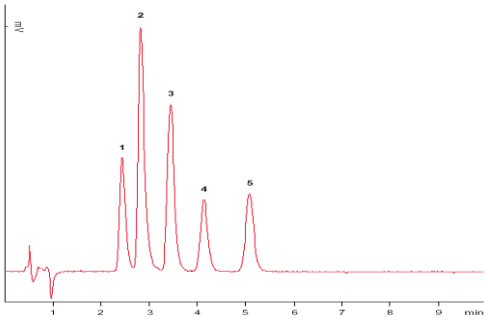
Isomers of Tocopherol (Vitamin E) ProntoSIL 200-3-C30

Part number	2546H300PS030	Sample	1 : δ - Tocopherol 2 : γ - Tocopherol 3 : β - Tocopherol 4 : α - Tocopherol
Dimension	250 x 4.6 mm		
Eluent	MeOH/H_2O, 96/4 (v/v)		
Flow	0.9 ml/min		
Detection	Coulometric		
Temperature	25 °C		
Injection	5 µl		



Tricyclic Antidepressants II ProntoSIL 120-3-C18 AQ

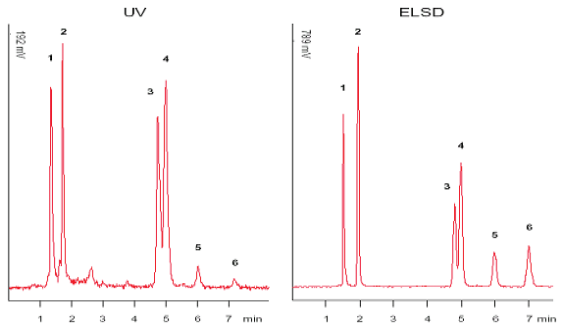
Part number	0604F184PS030	Temperature	20 °C
Dimension	53 x 4.0 mm	Injection	5 µl
Eluent	ACN/MeOH/$NH_4H_2PO_4$ (10 mM), 62/13/23 (v/v), titration with TEA to pH 5	Sample	1 : Doxepin 2 : Imipramine 3 : Nortriptyline 4 : Amitriptyline 5 : Trimipramine
Flow	0.69 ml/min		
Detection	UV 254 nm		



Steroids - UV vs. Evaporative Light Scattering Detection (ELSD)

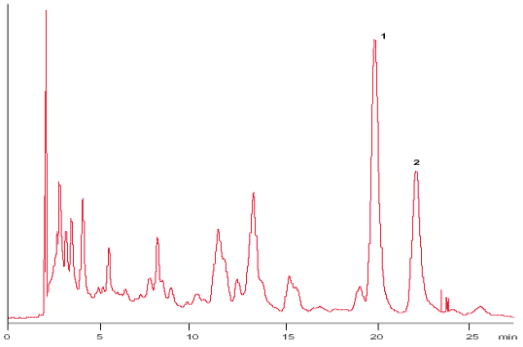
ProntoSIL 120-3-C18 H

Part number	2003F185PS030	Concentration	70 ppm each
Dimension	200 x 3 mm	Sample	1 : Hydrocortisone 2 : Progesterone 3 : Cholecalciferol 4 : Ergocalciferol 5 : Ergosterol 6 : Cholesterol
Eluent	MeOH		
Flow	0.65 ml/min		
Detection	a) UV 200 nm b) ELSD: PMT gain: 600. T: 40 °C		
Temperature	30 °C		
Injection	5 µl		



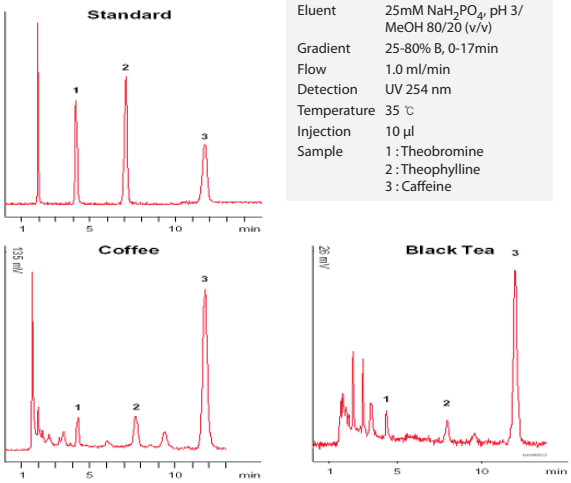
Carotenoids I ProntoSIL 200-3-C30

Part number	2546H300PS030	Sample	β- Carotene, technical mixture, isomerized 1 : all-trans 2 : 9-cis
Dimension	250 x 4.6 mm		
Eluent	MeOH/ TBME, 80/20 (v/v)		
Flow	1.4 ml/min		
Detection	VIS 450 nm		
Temperature	20 °C		
Injection	5 µl		



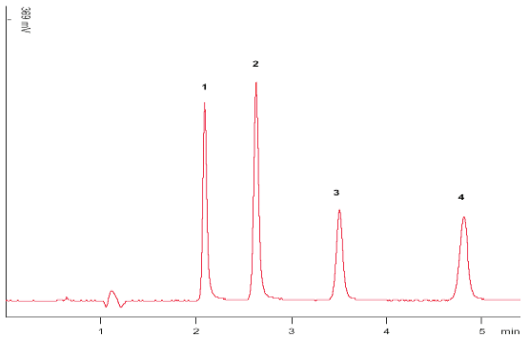
N-Methylated Xanthines
ProntoSIL 120-5-C18 AQ

Part number	1504F184PS050
Dimension	150 x 4.0 mm
Eluent	25mM NaH_2PO_4, pH 3/ MeOH 80/20 (v/v)
Gradient	25-80% B, 0-17min
Flow	1.0 ml/min
Detection	UV 254 nm
Temperature	35 °C
Injection	10 µl
Sample	1 : Theobromine 2 : Theophylline 3 : Caffeine



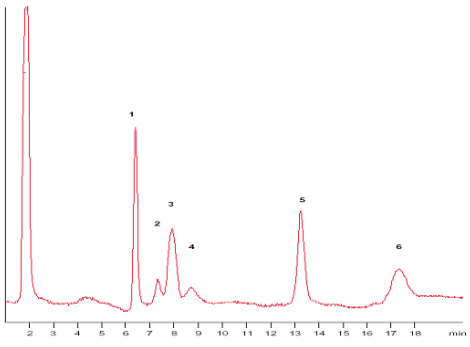
Parabens
ProntoSIL 120-3-PHENYL

Part number	1204F050PS030	Injection	10 µl
Dimension	125 x 4.0 mm	Sample	Parabens 1 : Methylparaben 2 : Ethylparaben 3 : Propylparaben 4 : Butylparaben
Eluent	20mM K2HPO4 / ACN, 50/50 (v/v)		
Flow	1.0 ml/min		
Detection	UV 254 nm		
Temperature	40 °C		



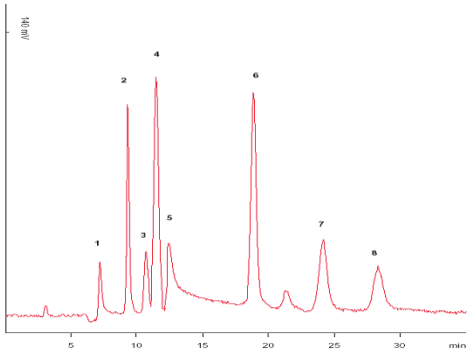
Carbohydrates I
ProntoSIL 120-3-NH_2

Part number	1246F190PS030	Sample	1 : Fructose 2 : Mannose 3 : Glucose 4 : Galactose 5 : Saccharose 6 : Maltose
Dimension	125 x 4.0 mm		
Eluent	H2O/ACN, 20/80 (v/v)		
Flow	1.0 ml/min		
Detection	RI		
Temperature	Ambient		
Injection	6 µl		



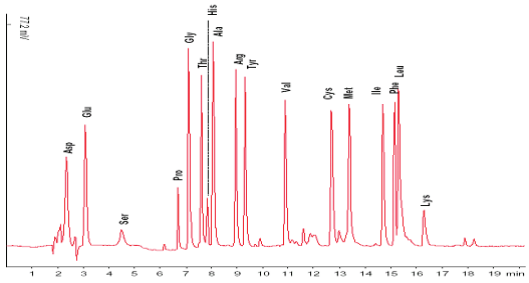
Carbohydrates II
Evaporative Light Scattering Detection
ProntoSIL 120-5-NH_2

Part number	1246F190PS030	Sample	1 : Fructose 2 : Mannose 3 : Glucose 4 : Galactose 5 : Saccharose 6 : Maltose
Dimension	125 x 4.0 mm		
Eluent	H2O/ACN, 20/80 (v/v)		
Flow	1.0 ml/min		
Detection	RI		
Temperature	Ambient		
Injection	6 µl		



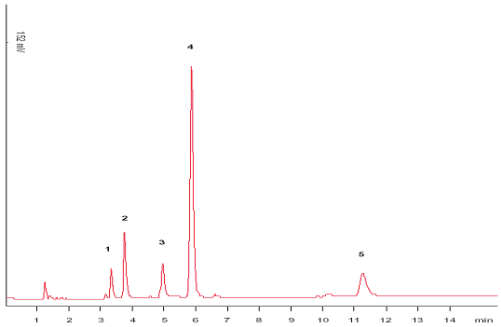
Amino Acids I
ProntoSIL 120-3-C18 H

Part number	2003F185PS030	Flow	0.6 ml/min
Dimension	200 x 3.0 mm	Detection	UV 340 nm
Eluent	A: 20 mM CH_3COONa in H_2O/ACN, 93/3 (v/v) B: 20 mM CH_3COONa in H_2O/ACN, 50/50 (v/v)	Temperature	30 °C
		Injection	1 µl
		Sample	SIGMA standard AA-s-18: OPA/ Mercapto-propionic acid labeled
Gradient	5-28% B, 0-144 s; 28-45% B, 145-560 s 45-82% B, 561-896 s 82-90% B, 897-1215 s		



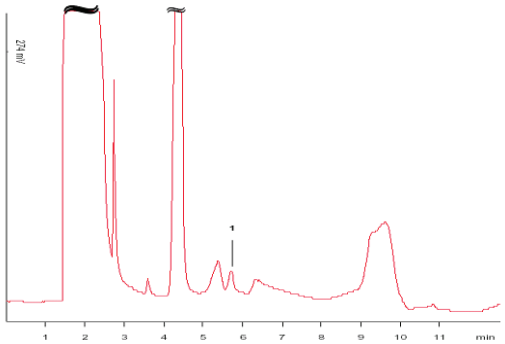
Weak Anions -
Ion Pair Chromatography
ProntoSIL 120-3-C8 SH

Part number	2003F080PS030	Injection	5 µl
Dimension	200 x 3.0 mm	Sample	1 : acetic acid 2 : lactic acid 3 : malic acid 4 : iodate 5 : citric acid
Eluent	10mM KH_2PO_4/10 mM TBA-H_3PO_4, pH 2.4		
Flow	0.6 ml/min		
Detection	UV 205 nm		
Temperature	25 °C		



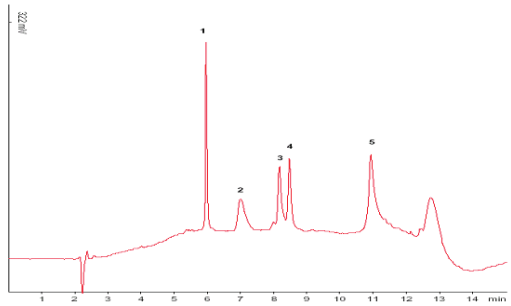
Iodate in Galvanic Bath
ProntoSIL 120-3-C18 SH

Part number	2546F180PS050	Injection	20 µl
Dimension	200 x 4.6 mm	Sample	Galvanic bath, technical 1 : iodate
Eluent	10mM KH_2PO_4/ 2 mM TBA-H_3PO_4, pH 1.95		
Flow	1 ml/min		
Detection	UV 196 nm		
Temperature	25 °C		



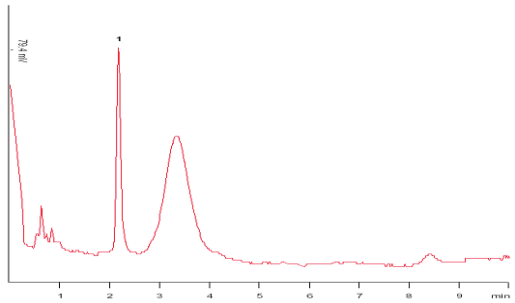
Proteins II
ProntoSIL 300-3-C4

Part number	2003K040PS030	Detection	UV 220 nm
Dimension	200 x 3.0 mm	Temperature	30 °C
Eluent	A: H_2O/0.1% TFA B: ACN/H2O, 95/5 (v/v) 0.1% TFA	Injection	5 µl
		Sample	1 : Cytochrome c 2 : Fibrinogen, human 3 : Chymotrypsinogen 4 : β-Lactoglobulin 5 : Thyroglobulin
Gradient	10-40% B, 0-218 s; 40-47% B, 219-512 s; 47-100% B, 513-612 s		
Flow	0.6 ml/min		



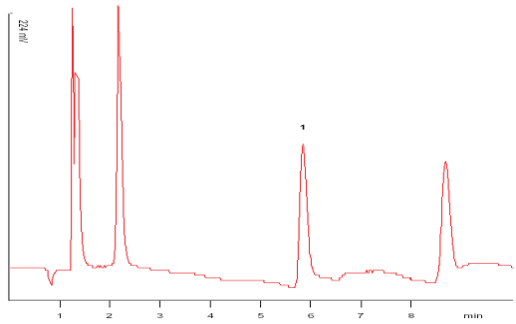
Peroxide
ProntoSIL 120-3-C18 H

Part number	0603F185PS030	Detection	Coulometric
Dimension	53 x 3.0 mm	Temperature	25 ℃
Eluent	A: 35mM citric acid/ 85mM sodium acetate/ 0.5mM heptane sulphonate: pH 4.3 B: MeCH A/B: 99.7/0.3 (w/w)	Injection	5 µl
		Concentration	500 ppb
		Sample	1 : Perbenzoic acid t-butyl ester
Flow	0.5 ml/min		



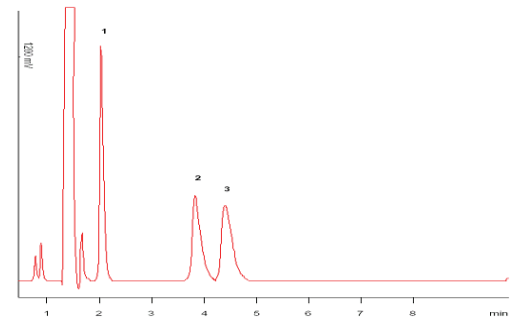
5-Aminolevulinic Acid
ProntoSIL 120-3-C18 H

Part number	1204F185PS030	Temperature	26 ℃
Dimension	125 x 4.6 mm	Injection	10 µl
Eluent	H_2O/MeOH/THF , 90/6/4 (v/v) 0.5 mM octane sulphonic acid (sodium salt): pH 3.26	Concentration	100 ppb
		Sample	1 : 5-Aminolevulinic acid
Flow	1 ml/min		
Detection	**Conductivity; FS: 5 µS**		



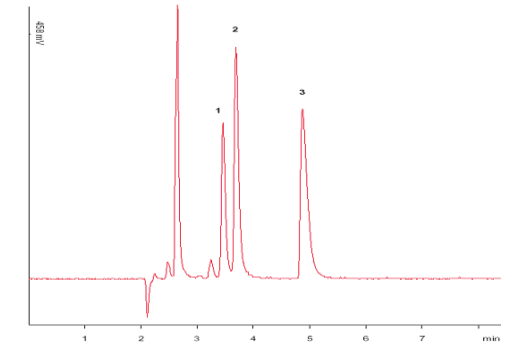
Alcohols I
ProntoSIL 120-5-C18 AQ

Part number	1546F184PS050	Injection	10 µl
Dimension	150 x 4.6 mm	Concentration	10 ppb each
Eluent	H_2O/MeOH, 96/4 (v/v) 0.8 mM Caps ; pH 2.5	Sample	1 : Ethanol 2 : Isopropanol 3 : n-Propanol
Flow	1.1 ml/min		
Detection	Indirect Conductivity ; **FS: 500 µS**		
Temperature	26 ℃		



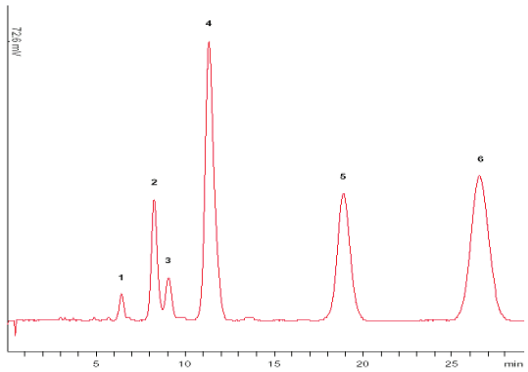
Dihydroxybenzoic Acids
ProntoSIL 120-3-CN

Part number	2003F200PS030	Temperature	20 ℃
Dimension	200 x 3 mm	Injection	5 µl
Eluent	30mM Sodium acetate/ 30mM Sodium Citrate; pH 4.6 0.5 ml/min	Concentration	1.8 mMol each
		Sample	1 : 2.3-Dihydroxybenzoic Acid 2 : 2.5-Dihydroxybenzoic Acid 3 : Salicylic Acid (1.2-DHBA)
Flow	0.5 ml/min		
Detection	UV 220 nm		



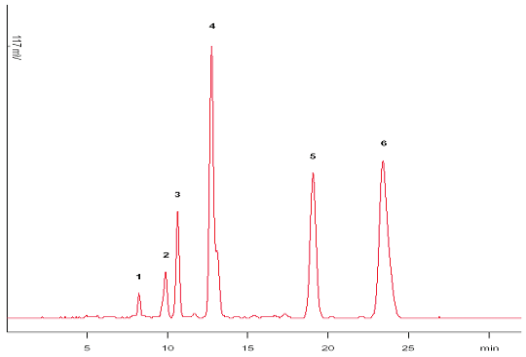
Bitter ingredients of hop I
ProntoSIL 120-5-C18 SH

Part number	0604F180PS050	Injection	10 µl
Dimension	53 x 4 mm	Sample	Hop CO_2-extract 1 : not identified 2 : Cohumulon 3 : Deoxyhumulon 4 : n-plus Adhumulon 5 : Colupulon 6 : n-plus Colupulon
Eluent	H2O/MeOH 25/75 (v/v) + 50 mM H_3PO_4		
Flow	1 ml/min		
Detection	UV 314 nm		
Temperature	21 °C		



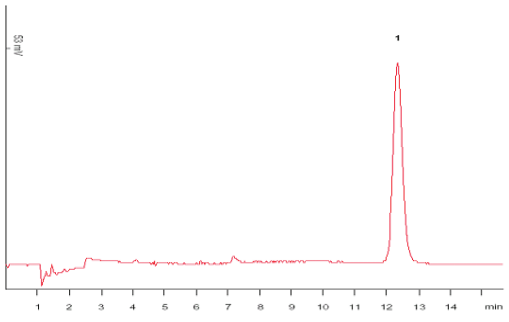
Bitter ingredients of hop II
ProntoSIL 120-5-C18 SH

Part number	2504F080PS050	Injection	10 µl
Dimension	250 x 4 mm	Sample	Hop CO_2-extract 1 : not identified 2 : Cohumulon 3 : Deoxyhumulon 4 : n-plus Adhumulon 5 : Colupulon 6 : n-plus Colupulon
Eluent	H2O/MeOH 20/80 (v/v) + 50 mM H_3PO_4		
Flow	1 ml/min		
Detection	UV 314 nm		
Temperature	21 °C		



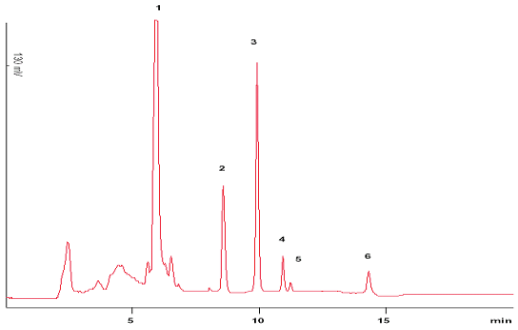
Melatonin
ProntoSIL 120-3-C18 H

Part number	1003F185PS030	Injection	10 µl
Dimension	100 x 3 mm	concentration	10 ppb
Eluent	ESA CAT-A Phase	Sample	1 : Melatronin
Flow	0.5 ml/min		
Detection	Coulometric		
Temperature	25 °C		



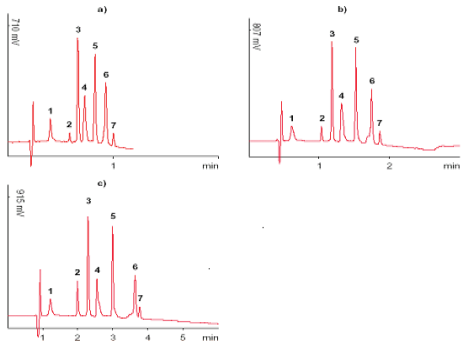
Aldehydes and Ketones I:
DNPH Derivatives in Galvanic BathPronto SIL 120-5-C18 H

Part number	2546F185PS050	Injection	50 µl
Dimension	250 x 4.6 mm	concentration	10 ppb
Eluent	A : H2O; B: ACN	Sample	1 : DNPH 2 : Formaldehyde 3 : Acetaldehyde 4 : Acetone 5 : Propanal 6 : Pentanal
Gradient	40% B, 0-60 s; 40-60% B, 61-390 s; 60-80% B, 391-480 s		
Flow	1 ml/min		
Detection	UV 360 nm		
Temperature	30 °C		



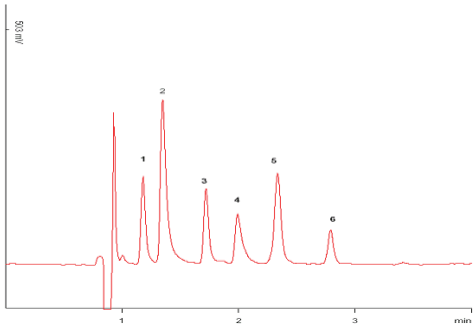
Fast Separation of Proteins
ProntoSIL 300-3-C18 H

Part number	0746K18PS030	Detection	UV 220 nm
Dimension	75 x 4.6 mm	Temperature	30 °C
Eluent	A: H_2O/0.1% TFA B: ACN/H_2O 95/5 (v/v)/0.1% FTA	Injection	5 µl
Gradient	a) 29-48% B, 0-25s; 48-100%B, 25-65 s b) 29-48% B, 0-49 s; 48-100% B, 49-130 s c) 29-100% B, 0-360 s	Sample	1: Ribouclease A 2: Insulin, bovine 3: Lysozyme 4: BSA 5: Myoglobin 6: Ovalbumin 7: not identified
Flow	a) 4ml/min; b) 2ml/min; c) 1ml/min		



Fast Separation of Peptides
ProntoSIL 300-3-C18 H

Part number	0746K185PS030	Temperature	30 °C
Dimension	75 x 4.6 mm	Injection	5 µl
Eluent	A: H_2O/0.1% TFA B: ACN/ H_2O 70/30 (v/v), 0.1% FTA	Sample	1: Oxytocin 2: Bradykinin 3: Angiotensin I 4: Eledoisin 5: Neurotensin 6: Angiotension II
Gradient	35-80% B, 0-480 s		
Flow	1 ml/min		
Detection	UV 220 nm		

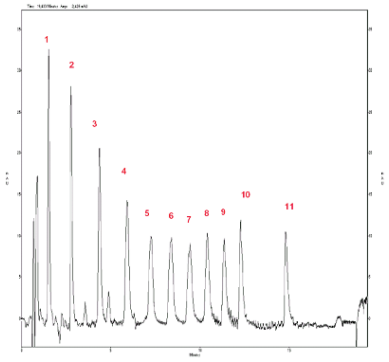


ProntoSIL HPLC Column Application – 2

Page

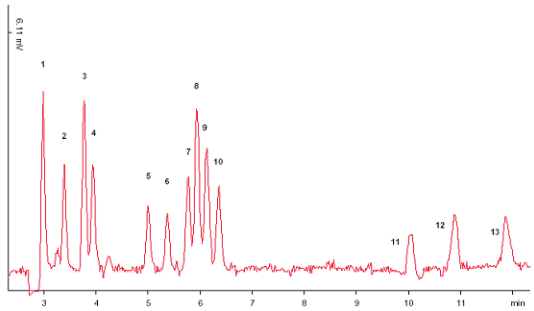
Ketones I
ProntoSIL 120-3-C18 AQ

Part number	0203F184PS030	Sample	1: Tetramethylketone 2: 2-Pentanone 3: 2-Hexanone 4: 2-Hexanone 5: 2-Octanone 6 2-Nonanone 7: 2-Decanone 8: 2-Undecanone 9: 2-Dodecanone 10: 2-Tridecanone 11: 2-Hexadecanone
Dimension	25 x 3 mm		
Eluent	A: H_2O B: ACN		
Gradient	10-100% B, 0-18 min		
Flow	0.35 ml/min		
Detection	UV 270 nm		
Temperature	30 ℃		
Injection	2 µl		



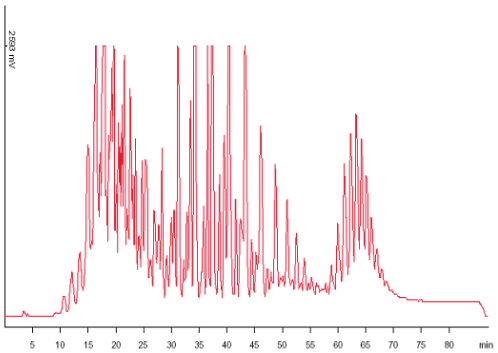
Organic Acids III
ProntoSIL 120-3-C18 AQ

Part number	3003F184PS030	Sample	1: oxalic acid 150 ppm 2: not identified 3: tartaric acid 150 ppm 4: quinic acid 5: malic acid 6: malonic acid 7: shikimic acid 8: lactic acid 9: ascorbic acid 10: acetic acid 11: citric acid 12: fumaric acid 13: succinic acid
Dimension	300 x 3 mm		
Eluent	5 mM Li2So4/ H2SO4 pH 2.81		
Flow	0.56 ml/min		
Detection	RI		
Temperature	20 ℃		
Injection	10 µl		
Concentration	300 ppm each, except 1,3		



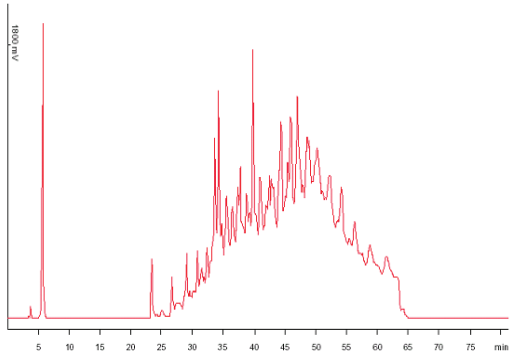
Coconat Fatty Acid Ethoxylates 10 EO
ProtoSIL 120-5-NH_2

Part number	2546F190PS050	Flow	1 ml/min
Dimension	250 x 4.6 mm	Detection	Evap. Light Scattering Detector (ELSD), model DDI 31; PMT: 300, T: 42 ℃, p(air): 1bar
Eluent	A: n-hexane B: acetone		
Gradient	3-20% B, 0-770 s; 20-38% B, 771-2600 s; 38-70% B, 2601-3600 s 70% B, 3600-4900 s	Temperature	30 ℃
		Injection	50 µl



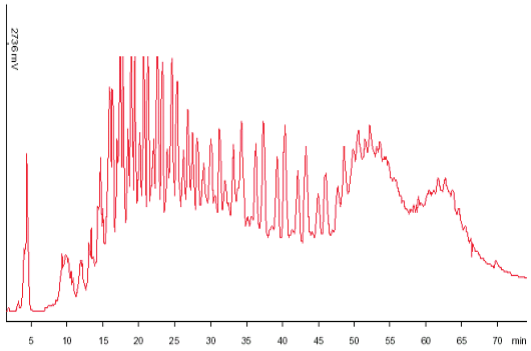
Castor oil Ethoxylates 20 EO
ProtoSIL 120-5-NH_2

Part number	2546F190PS050	Detection	Evap. Light Scattering Detector (ELSD), model DDI 31; PMT: 500, T: 42 ℃, p(air): 1bar
Dimension	250 x 4.6 mm		
Eluent	A: n-hexane B: acetone	Temperature	30 ℃
Gradient	0-5% B, 0-1200 s; 5-40% B, 2601-3600 s 40% B, 2601-3600 s	Injection	50 µl
Flow	1 ml/min		



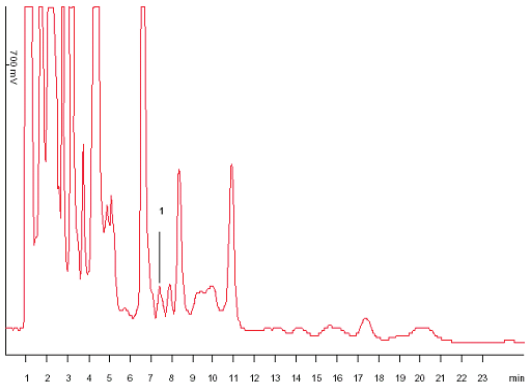
Soybean oil Ethoxylates 20 EO
ProtoSIL 120-5-NH_2

Part number	2546F190PS050	Flow	1 ml/min
Dimension	250 x 4.6 mm	Detection	Evap. Light Scattering Detector (ELSD), model DDl 31; PMT: 300, T: 42 ℃, p(air): 1bar
Eluent	A: n-hexane B: acetone		
Gradient	3-20% B, 0-770 s; 20-38% B, 771-2600 s; 38-70% B, 2601-3600 s 70% B, 2601-3600 s	Temperature	30 ℃
		Injection	50 µl



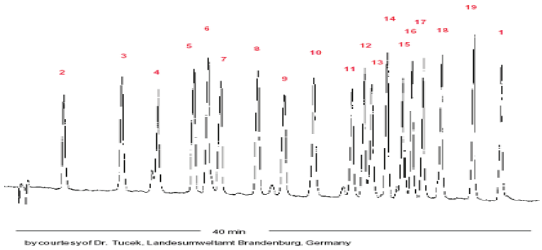
Calcium-DL-2-Hydroxy-4-methylthiobutyrate in Animal Food
ProtoSIL 120-5-NH_2

Part number	1003F185PS030	Flow	0.55 ml/min
Dimension	100 x 3 mm	Detection	Coulometric
Eluent	A: 75 mM NaH2PO4/ 0.2 mM heptanesulfonic acid (sodium salt), pH 2.9 B: ACN; A/B 98/2 (v/v)	Temperature	25 ℃
		Injection	10 µl



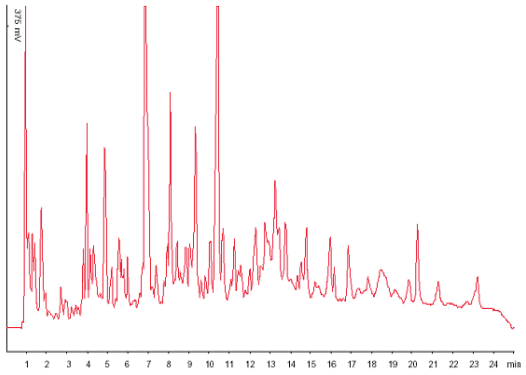
Aldehydes and Ketones as DNPH Derivatives
ProntoSIL 120-5-C18 H

Part number	2504F185PS050	Sample	1: Nonanal (internal standard) 2: 2,4-Dinitrophenylhydrazine 3: Formaldehyde 4: Acetalderhyde 5: Acetone 6: Acrolein 7: Propanal 8: Crotonic Aldehyde 9: n-Butanal 10: Benzaldehyde 11: Pentanal 12: 2-Methylbenzaldehyde 13: 4-Methylbenzaldehyde 14: 3,3-Dimethylbutanone 15: Hexanal 16: 2,4-Dimethylbenzaldehyde 17: 2,4-dimethylpentanone 18: Heptanal 19: Octanal
Dimension	250 x 4.0 mm		
Eluent/Gradient (final compositions of linear steps are given (v/v/v ratios)): 0-5 min isocratic: THE/ACN/H_2O (16/25/59) 10 min. The/ACN/H_2O (10/40/50) 20 min. The/ACN/H_2O (0/60/40) 30 min. The/ACN/H_2O (0/80/20) 40 min. The/ACN/H_2O (0/100/0) 45 min. The/ACN/H_2O (16/25/59)			
Flow	1.3 ml/min		
Detection	UV 360 nm		
Temperature	30 ℃		
Injection	10 µl		



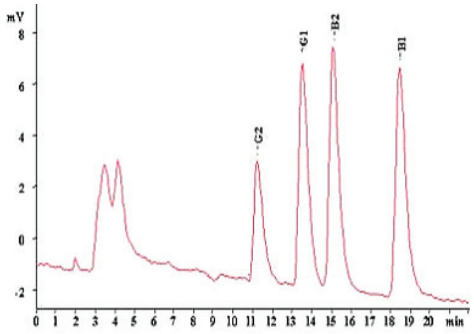
Tryptic digest of Casein Peptone
ProntoSIL 120-3-C18 AQ

Part number	0746K180PS030	Flow	1 ml/min
Dimension	75 x 4.6 mm	Detection	UV 220 nm
Eluent	A: H_2O/0.1% TFA B: ACN/ H_2O 70/30 (v/v), 0.1% TFA	Temperature	30 ℃
		Injection	5 µl
		Sample	Tryptic digest of casein peptone
Gradient	0-40% B, 0-1400 s 40-0% B, 1401-1481 s		



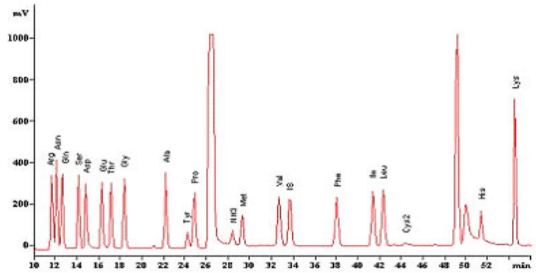
Aflatoxines with KBr Derivatization
ProntoSIL 120-5-C18 AQ

Part number	2546F184PS050	Temperature	30 °C
Dimension	250 x 4.6 mm	Injection	5 µl
Eluent	ACN/MeOH/H2O 20/20/60 (v/v/v)	Sample	Aflatoxin-Standard G2: 60 fg/ml G1: 100 fg/ml B2: 50 fg/ml B1: 90 fg/ml Injection: 100 µl
Flow	1.0 ml/min		
Detection	Fluorescence Detector Model 8470 Ex: 365nm Em:429nm		



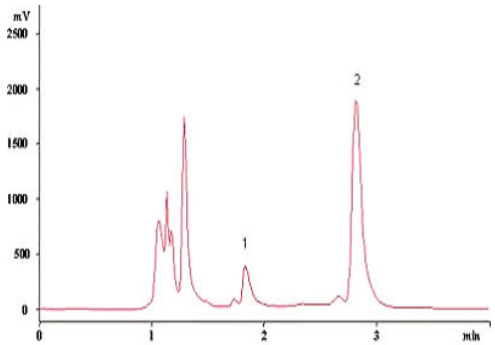
Amino Acids with FMOC
ProntoSIL-AA-FMOC 5.0µm

Part number	2504F470PS050	Detection	Fluorescence Ex: 263 nm Em: 313 nm
Dimension	250 x 4.0 mm	Temperature	30 °C
Eluent	A:50mM CH_3COONa pH4 2,5% THF B: ACN	Injection	10 µl
Flow	1.0 ml/min	Sample	SIGMA standard AA-S-18 + Asn, Gln, IS (ß-tAla) FMOC labeled
Gradient	20-36% B, 0-20 min 36-38% B, 20-28 min 38% B, 28-34 min 38-59% B, 34-51 min 59-67% B, 51-56 min		



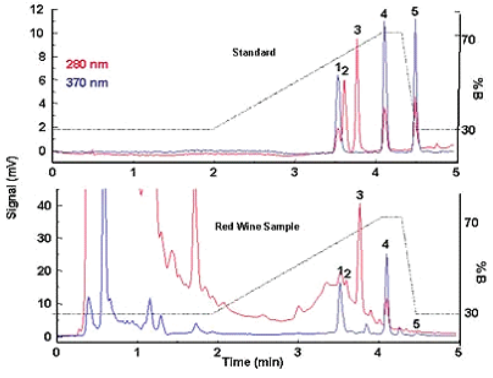
Chinin and Saccharin in Beverages
ProntoSIL-120-5-C18 H 5.0 µm

Part number	1204F185PS050	Temperature	25 °C
Dimension	125 x 4.0 mm	Injection	20 µl
Eluent	MeOH/H_2O 70/30 (v/v) + 5ml/l H_3PO_4	Sample	Bitter Lemon Light 1: Quinine 2: Saccharin
Flow	1.0 ml/min		
Detection	UV 210 nm		



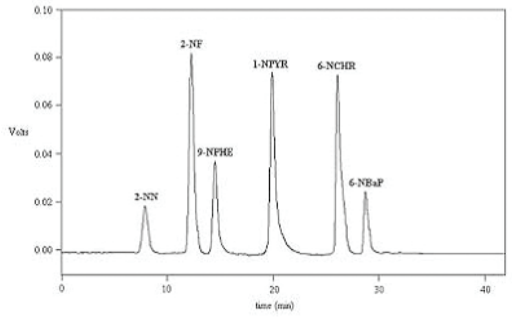
Flavonoids in Red Wine
ProntoSIL 120-5-C8 ace-EPS 5.0µm

Part number	1204F08APS050	Detection	UV 280 nm (Stilbenes) 370 nm (Flavonoides)
Dimension	125 x 4.0 mm	Temperature	40 °C
Eluent	A: 10 mM NaH_2PO_4 pH 3.0 B:ACN	Injection	25 µl
Flow	2.5 ml/min	Sample	Red Wine 1: Myrcetin 2: cis- Resveratrol 3: trans- Resveratrol 4: Quercetin 5: Caempferol
Gradient	Gradient: 30% B, 0-2 min 30-70% B, 2-4 min 70% B, 4-4.4 min 70-30% B, 4.4-4.5min 30% B, 4.5-5.5min		



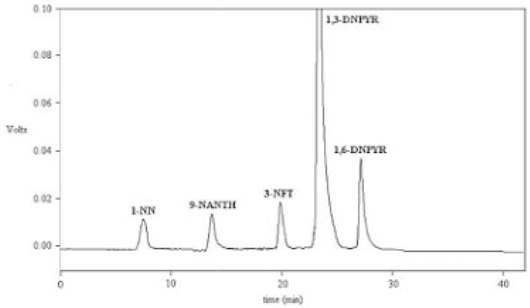
Analysis of Nitro-PAH with Fluorescence Detection (I)
ProntoSIL 120-3-Phenyl

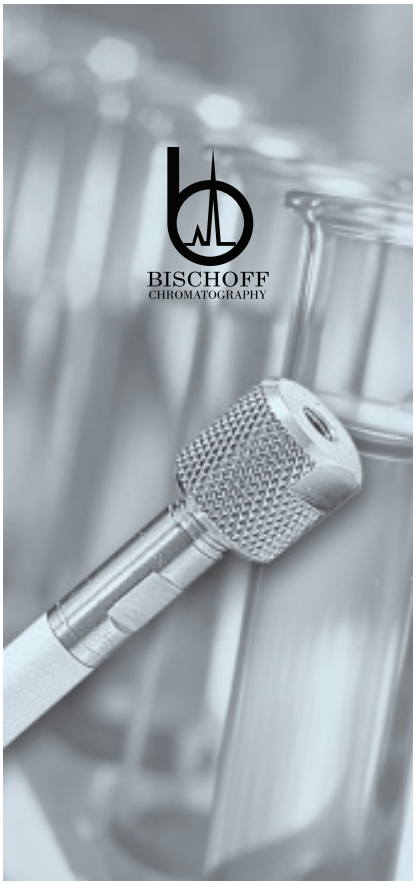
Part number	1204F050PS030	Temperature	25 °C
Dimension	125 x 4.0 mm	Injection	20 µl
Eluent	A: MeOH/H_2O 60/40 (v/v) B: MeOH 0 % B hold for 13 min, 0 – 100 % B in 29 min	Sample	Nitro-PAH Mix1
Flow	0.8 ml/min		
Detection	Fluorescence Detector Model 8470 wavelength program		



Analysis of Nitro-PAH with Fluorescence Detection (II)
ProntoSIL 120-3-Phenyl

Part number	1204F050PS030	Temperature	25 °C
Dimension	125 x 4.0 mm	Injection	20 µl
Eluent	A: MeOH/H_2O 60/40 (v/v) B: MeOH 0 % B hold for 13 min, 0 – 100 % B in 29 min	Sample	Nitro-PAH Mix2
Flow	0.8 ml/min		
Detection	Fluorescence Detector Model 8470 wavelength program		



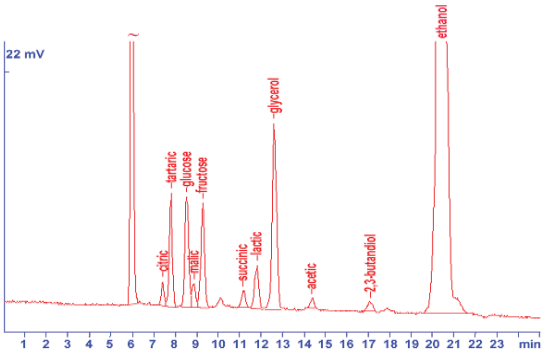


ProntoSIL HPLC Column Application – 3

Page

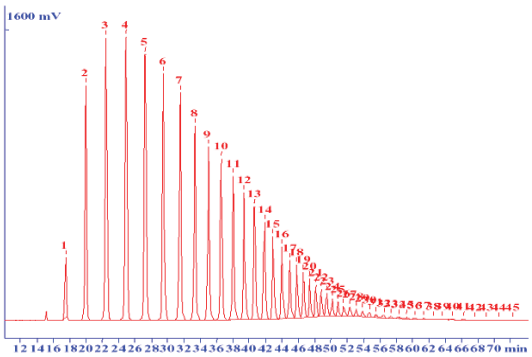
Carbohydrates, Organic Acids and Alcohols in Wine Carbohydrate H+

Part number	00253776
Dimension	300 x 7.8 mm
Eluent	1.25 mM H_2SO_4
Flow	0.6 ml/min
Detection	RI
Temperature	45 °C
Injection	50 µl
Sample	Wine Complett Standard



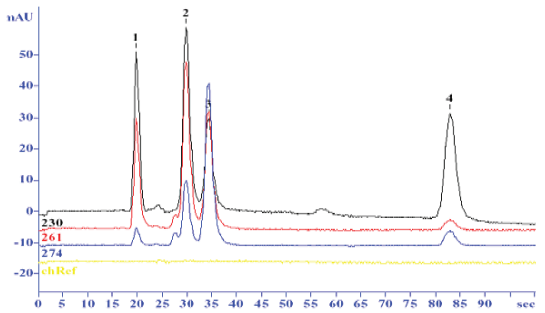
Dimethylsiloxane with Evaporative Light Scattering Detection ProntoSIL 120-5-C18 SH

Part number	2546F180PS050
Dimension	250 x 4.6 mm
Eluent	A: ACN/Acetone 70/30 (v/v) B: Ethyl acetate 5-70% B in 50 min, 70% B hold for 15 min
Flow	0.9 ml/min
Detection	Evap. Light Scattering detector (DDL31) PMT: 500, Temp: 40 °C Pressure (air): 1.5 bar
Temperature	25 °C
Sample	Silicone-Standard (DMS-T11) Injection: 10 µl



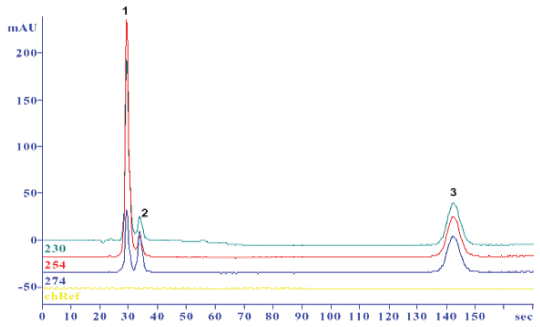
Fast Analysis of a pharmaceutical Teststandard with Multiwavelength Detection ProntoSIL-120-5-C18 AQ

Part number	0446F184PS050
Dimension	33 x 4.6 mm
Eluent	A: H_2O + 0.1% TFA; B:ACN
Gradient	20-30% B in 60 sec
Flow	1.2 ml/min
Detection	Multiwavelength Detector (DAD-3L)
Wavelength	230, 261 and 274 nm; Ref. at 350nm
Temperature	25 °C
Injection	1 µl
Sample	1 Ascorbinic acid 2 Paracetamol 3 Caffeine 4 Acetylsalicylic acid



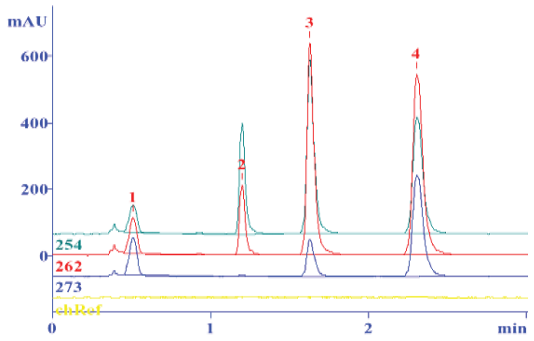
Fast Analysis of a Cold Medicine II with Multiwavelength Detection ProntoSIL-120-5-C18 AQ

Part number	0446F184PS050
Dimension	33 x 4.6 mm
Eluent	A: H_2O + 0.1% TFA; B:ACN
Gradient	20-30% B in 30 sec
Flow	1.2 ml/min
Detection	Multiwavelength Detector (DAD-3L)
Wavelength	230, 254 and 274 nm; Ref. at 350nm
Temperature	25 °C
Injection	1 µl
Sample	1 Paracetamol 3 Caffeine 4 Propylphenanzone



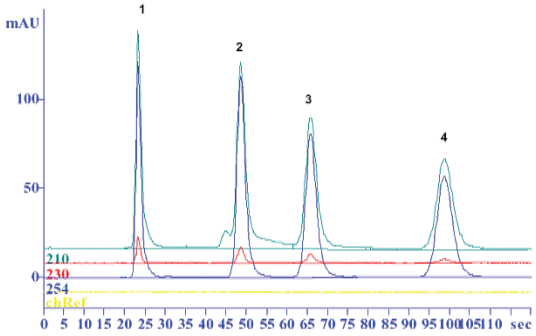
Standardtestmixture with Multiwavelength Detection
ProntoSIL 120-3-C18 SH

Part number	0604F180PS030	Temperature	25 °C
Dimension	53 x 4.0 mm	Injection	1 µl
Eluent	H2O/ ACN; 40/60	Sample	1 Acetone 2 Benzene 3 Toluene 4 m-Xylene
Flow	1.0 ml/min		
Detection	Multiwavelength Detector (DAD-3L)		
Wavelengthe	254, 262 and 273 nm Ref. at 350nm		



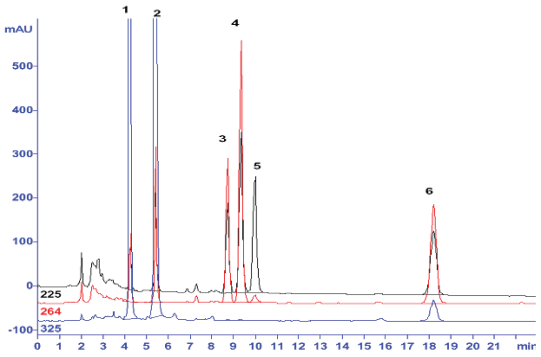
Fast Analysis of Parabens II with Multiwavelength Detection
ProntoSIL 120-5-C18 AQ

Part number	0446F184PS050	Wavelengthe	210, 230 and 254 nm Ref. at 350 nm
Dimension	33 x 4.6 mm	Temperature	25 °C
Eluent	A: H2O B: ACN	Injection	2 µl
Gradient	20-30% B in 30 sec	Sample	1 Uracil 2 Methylparabene 3 Ethylparabene 4 Propylparabene
Flow	1.0 ml/min		
Detection	Multiwavelength Detector (DAD-3L)		



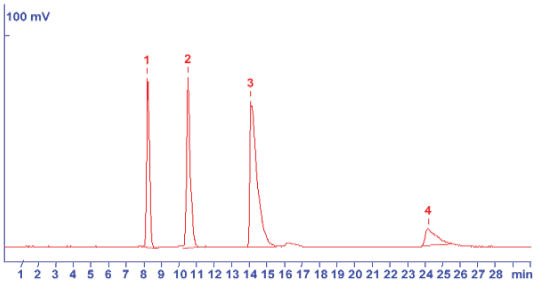
Fat soluble Vitamins II with Multiwavelength Detection
ProntoSIL 120-3-C18 SH

Part number	2503F180PS030	Injection	5 µl
Dimension	250 x 3.0 mm	Sample	1: Vitamin A 2: Vitamin A acetate 3: Vitamin D_2 4: Vitamin D_3 5: Vitamin E 6: Vitamin K_1
Eluent	MeOH		
Flow	1 ml/min		
Detection	Multiwavelength Detector (DAD-3L)		
Wavelengthe	225, 264, 325 nm		
Temperature	25 °C		



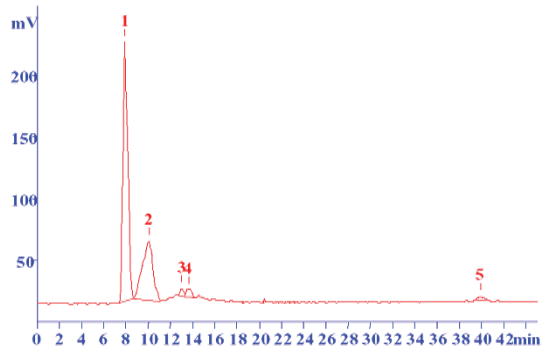
Aromatic Hydrocarbons according to prEN 12916
ProntoSIL ENVIRO PTL

Part number	2546C450PS050	Sample	Calibration Standard B - EUOPEAN STANDARD prEN 12916 (June 1997) 1: Cyclohexane (2.0g/100ml) 2: o-Xylene (1.0g/100ml) 3: 1-Methylnaphthalene (1.0g/100ml) 4: Phenanthrene (0.2g/100ml) 7. 22 between Cyclohexane and o- Xylene (the resolution between Cyclohexane and o-Xylene should not be less thean 5.0)
Dimension	250 x 4.6 mm		
Eluent	Heptane		
Flow	1.0 ml/min		
Backflush on	16 min		
Detection	RI		
Temperature	25 °C		
Injection	10 µl		



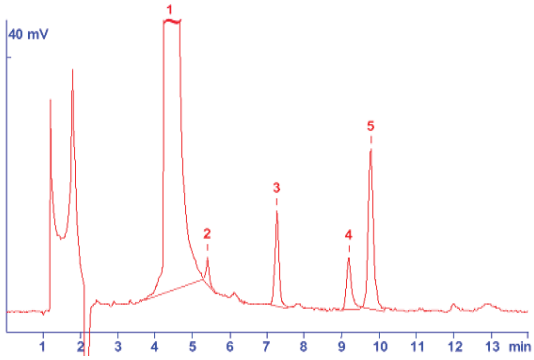
Diesel
ProntoSIL ENVIRO PTL

Part number	2546C450PS050	Sample	1: Cyclohexane 2: Monocycl. Aromatics 3: Dicycl. Aromatics 4: Dicycl. Aromatics 5: Polycycl. Aromatics
Dimension	250 x 4.6 mm		
Eluent	Heptane		
Flow	1.0 ml/min		
backflush on	20 min		
Detection	RI		
Temperature	25 °C		
Injection	10 µl		



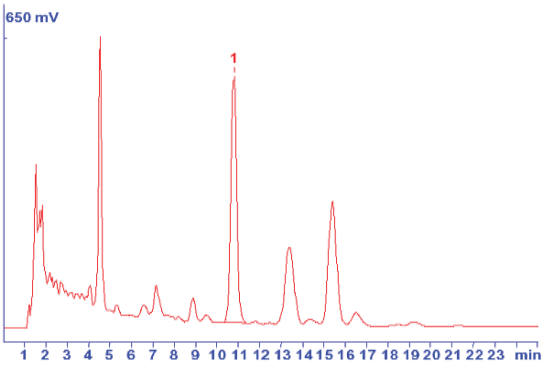
Acetaldehyde in Mineralwater
ProntoSIL 120-3-C18 ACE- EPS

Part number	1504F18APS030	Sample	Mineralwater after Derivatisation with DNPH 1 DNPH 5 Acetaldehyde. 6ppb
Dimension	150 x 4.0 mm		
Eluent	H2O/ ACN 50/50 (v/v)		
Flow	1.0 ml/min		
Detection	UV 360 nm		
Temperature	25 °C		
Injection	500 µl		



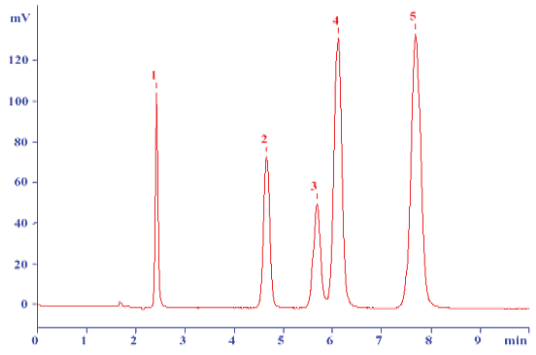
Ergosterol in Grass
ProntoSIL 120-5-C18 H

Part number	1204F185PS050	Sample	1 Ergosterol Extracted according to VDLUFA (1993)
Dimension	125 x 4.0 mm		
Eluent	H2O/MeOH 2/98 (v/v)		
Flow	0.75 ml/min		
Detection	UV 282 nm		
Temperature	25 °C		
Injection	20 µl		



Sulfa Drugs
ProntoSIL 120-5-C18 ACE - EPS

Part number	1546F18APS050	Injection	3 µl
Dimension	150 x 4.6 mm	Sample	1 Sulfanilamide 2 Sulfadiazine 3 Sulfathiazole 4 Sulfamerazine 5 Sulfamethazine
Eluent	MeOH/H2O/Acetic Acid 20/79/1 (v/v/v)		
Flow	1 ml/min		
Detection	UV 254 nm		
Temperature	25 °C		

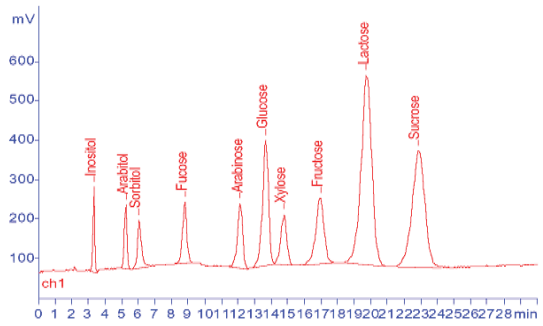


ProntoSIL HPLC Column Application – 4

Page

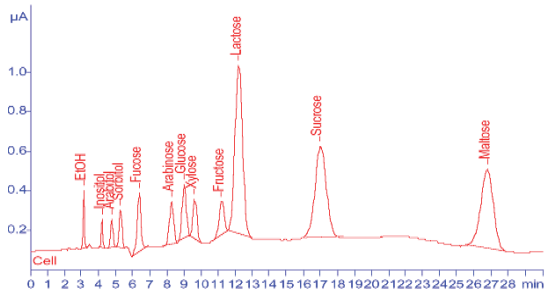
Sugaralchols, Mono-and Disaccharides with BioQuant Carbohydrate

Column	Sugar1	Sample	1 Inositol
Dimension	250 x 4.6 mm PEEK		2 Arabitol
Eluent	100mM NaOH		3 Sorbitol
Flow	0.9 ml/min		4 Fucose
Detection	BioQuant Carbohydrate		5 Arabinose
Temperature	28 ℃		6 Glucose
Injection	20 µl		7 Xylose
			8 Fructose
			9 Lactose
			10 Sucrose (1-50 mg/l)



Alcohol, Sugaralcohols, Mono-and Disaccharides with BioQuant Carbohydrate

Column	Sugar1	Sample	1 Ethanol
Dimension	250 x 4.6 mm PEEK		2 Inositol
Eluent	A: 96mM NaOH		3 Arabitol
	B: 96mM NaOH, 250 mM NaOAc		4 Sorbitol
Gradient	5%-10%B 0-15min; 10-25%B		5 Fucose
	15-20 min		6 Arabinose
Flow	1 ml/min		7 Glucose
Detection	BioQuant Carbohydrate		8 Xylose
Temperature	28 ℃		9 Fructose
Injection	20 µl		10 Lactose
			11 Sucrose
			12 Maltose (0.5-25 mg/l)

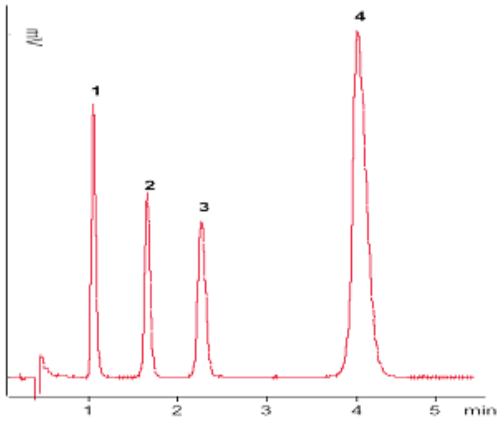


ProntoSIL HPLC Column Application – 5

• High Speed Separation of Catecholamines

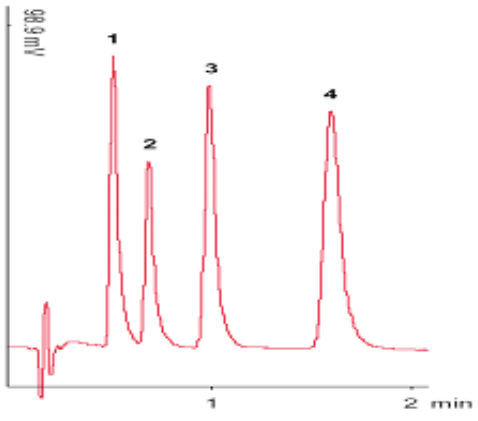
High Speed Separation of Catecholamines ProntoSIL 120-3-C18 AQ

Part number	0404F184PS030	Sample	1: Norepinephrine
Dimension	33 x 4 mm		2: Epinephrine
Eluent	CAT-A-Phase		3: Dihydroxybenzylamine
Flow	1.0 ml/min		4: Dopamine
Detection	Coulometric		
Temperature	30 °C		
Injection	3 µl		



High Speed Separation of Catecholamines ProntoSIL 120-3-C18 AQ

Part number	0203F184PS030	Sample	1: Norepinephrine
Dimension	25 x 3 mm		2: Epinephrine
Eluent	ADAM-B-Phase		3: Dihydroxybenzylamine
Flow	0.95 ml/min		4: Dopamine
Detection	Coulometric		
Temperature	28 °C		
Injection	1 µl		

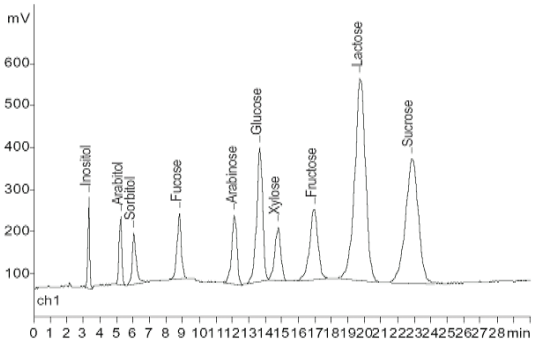


ProntoSIL HPLC Column Application – 6

Page

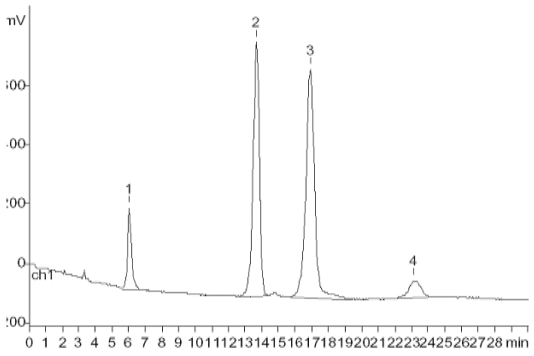
Sugaralcohols, Mono-and Disaccharides with BioQuant Carbohydrate

Column	PAD Column	Sample	1 Inositol
Dimension	250 x 4.6 mm PEEK		2 Arabitol
Eluent	100mM NaOH		3 Sorbitol
Flow	0.9 ml/min		4 Fucose
Detection	BioQuant Carbohydrate		5 Arabinose
Temperature	28 ℃		6 Glucose
Injection	20 µl		7 Xylose
			8 Fructose
			9 Lactose
			10 Sucrose (1-50mg/l)



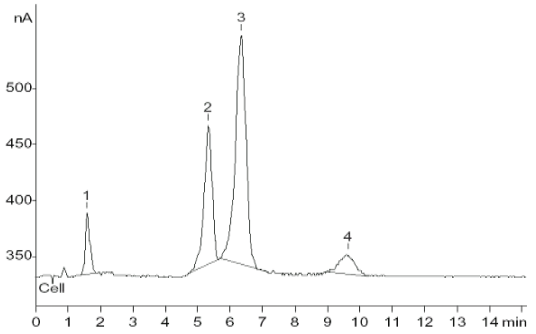
Sugars in Applejuice with BioQuant Carbohydrate

Column	PAD Column	Sample	1 Sorbitol
Dimension	250 x 4.6 mm PEEK		2 Glucose
Eluent	100 mM NaOH		3 Fructose
Flow	0.9 ml/min		4 Sucrose
Detection	BioQuant carbohydrate		
Temperature	28 ℃		
Injection	20 µl (diluted 1: 1000)		



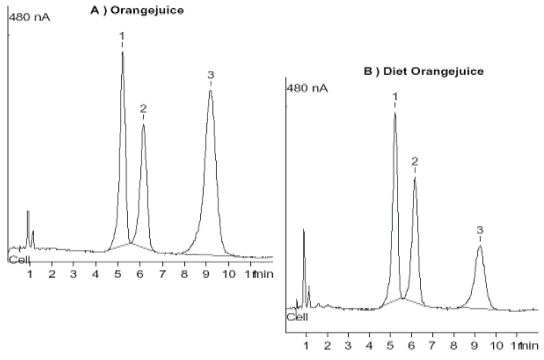
Sugars in Applejuice

Column	hamilton RCX-30	Sample	1 Sorbitol
Dimension	150 x 4.6 mm PEEK		2 Glucose
Eluent	60 mM NaOH		3 Fructose
Flow	2.00 ml/min		4 Sucrose
Detection	BioQuant Carbohydrate		
Temperature	32 ℃		
Injection	1 µl (diluted 1:1000)		



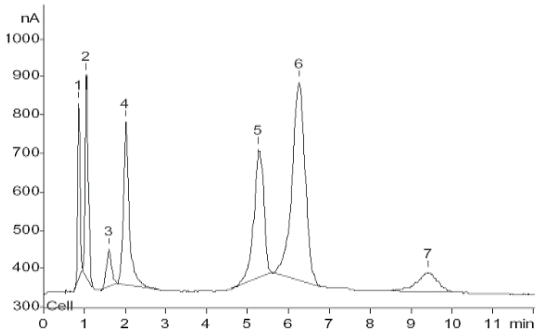
Sugars in Oragnejuice (A) and Diet Orangejuice (B)

Column	Hamilton RCX-30	Injection	5 µl (diluted 1: 1000)
Dimension	150 x 4.6 mm PEEK	Sample	1 Glucose
Eluent	60 mM NaOH		2 Fructose
Flow	2.00 ml/min		3 Sucrose
Detection	BioQuant carbohydrate		
Temperature	32 ℃		



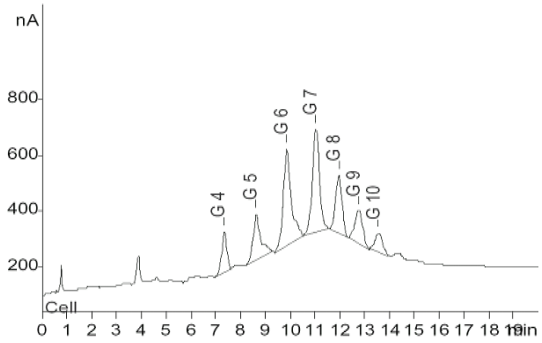
Sugars In Shampoo

Column	Hamilton RCX-30	Injection	1 µl
Dimension	150 x 4.6 mm PEEK	Sample	3 Sorbitol 5 Glucose 6 Fructose 7 Sucrose
Eluent	60 mM NaOH		
Flow	2.00 ml/min		
Detection	BioQuant Carbohydrate		
Temperature	32 ℃		



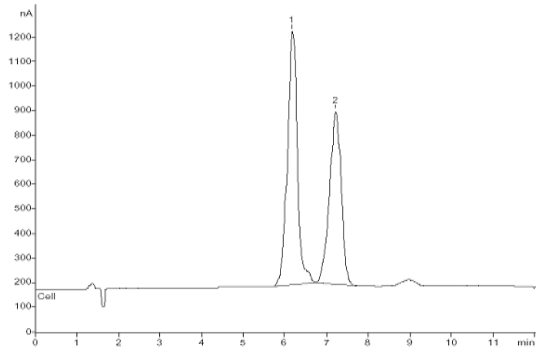
Maltooligosaccacharides from Cornsyrup

Column	Hamilton RCX	Flow	2.00 ml/min
Dimension	150 x 4.6 mm PEEK	Detection	BioQuant carbohydrate
Eluent	Eluent A: 60 mM NaOH Eluent B: 60 mM NaOH: 500 mM Na-acetat	Temperature	32 ℃
		Injection	5 µl
		Sample	G4- G10
Gradient	10-60% B in 0-20 min		



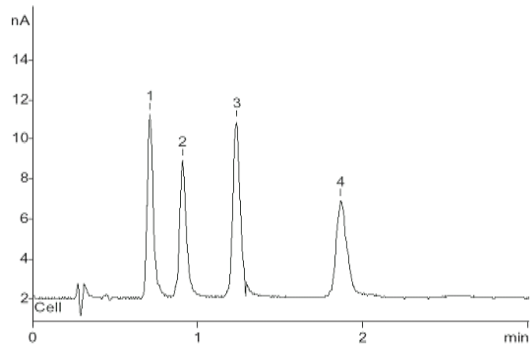
Monosaccharides of Glycoproteins

Column	Dionex CarboPAC PA1	Injection	5 µl
Dimension	250 x 4.0 mm PEEK	Sample	1 Galactosamine 2 Glucosamine
Eluent	20 mM NaOH		
Flow	1.00 ml/min		
Detection	BioQuant Carbohydrate		
Temperature	28 ℃		



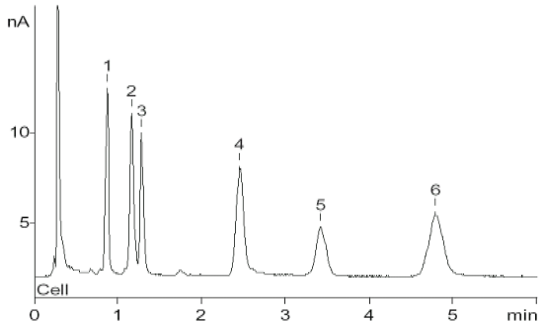
Plasma Catacholamines

Column	ProntoSIL-120-3-C18 AQ	Injection	5 µl
Dimension	33 x 3.0 mm	Sample	1 Noradrenalin 2 Adrenalin 3 DHBA 4 Dopamin
Eluent	Pronto- Cat Phase		
Flow	0.5 ml/min		
Detection	BioQuant carbohydrate		
Temperature	30 ℃		



Catecholamine -6 -Standard

Column	ProntoSIL-120-3-C18 AQ	Sample	1 Arenalin
Dimension	33 x 3.0 mm		2 DHBA
Eluent	Pronto- Cat Phase		3 DOPAC
Flow	0.5 ml/min		4 5-HIAA
Detection	BioQuant Carbohydrate		5 HVA
Temperature	30 ℃		6 Serotonin
Injection	5 µl		



Catecholamine -8 -Standard

Column	ProntoSIL-120-3-C18 AQ	Injection	5 µl
Dimension	33 x 3.0 mm	Sample	1 Noradrenalin
Eluent	Pronto- Cat Phase		2 Adrenalin
Flow	0.5 ml/min		3 DHBA
Detection	BioQuant CAT Amine, +500 mV		4 DOPAC
Temperature	30 ℃		5 Dopamin
			6 5-HIAA
			7 HVA
			8 Serotonin