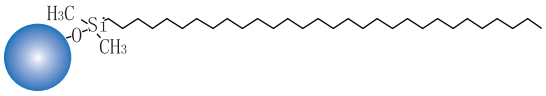
Ultisil™ XB-C30

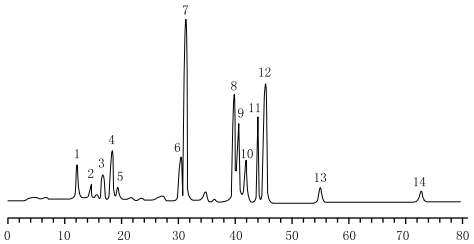
Carotenoids is a broad class of natural products, of which over 600 types have been found so far, including compounds of different carbon chain length, such as C40, C50 and C30 etc. They are well known to have many biological functions, including cancer prevention and treatment functions.
Compared to classical C18 stationary phases, the C30 phase is much more hydrophobic and retaining. Even when pure organic eluent is applied, many sample solutes, such as carotenoids, are able to retain. Ultisil™ C30 is designed for the separation of geometric isomers, polar carotenes, polar and nonpolar xanthophylls, steroids, retinols and fat-soluble vitamins (A, D, K and E).

- Polymeric C30 alkyl chains
- Very lipophilic
- Exceptional selectivity pattern for geometric isomers

Ultisil™ XB-C30

Structural Formula	
pH Range	1.5-10.0
Particle Size	3 µm, 5 µm, 10 µm
Surface Area(m^2/g)	320(120 Å)
Carbon Loading(%)	22(120 Å)
USP List	L62
Endcapped	Yes

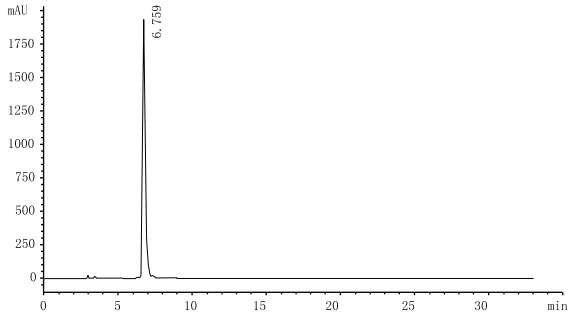
Separation of Carotenoids



1:Astaxanthin
2:Capsanthin
3:Lutein
4:Zeaxanthin
5:Canthaxanthin
6:β-Cryptoxanthin
7:Echinenone
8:15-cis β-Carotene
9:13-cis β-Carotene
10:α-Carotene
11:trans β-Canotene
12:9-cistrans β-Carotene
13:8β-Carotene
14:Lycopene

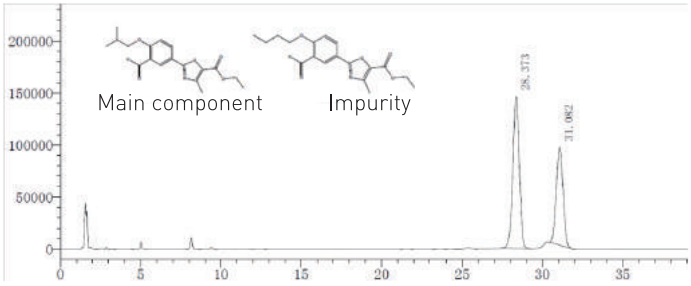
Column:	Ultisil™ XB-C30, 4.6 ×250 mm, 5 µm
Mobile Phase:	A: methanol / MTBE / water=81/15/4 B: methanol/ MTBE=10/90
Gradient Program:	0-90 min (0%B-100%B)
Detector:	450 nm
Temperature:	Ambient
Flow Rate:	1.0 mL/min

Analysis of All-trans Astaxanthin



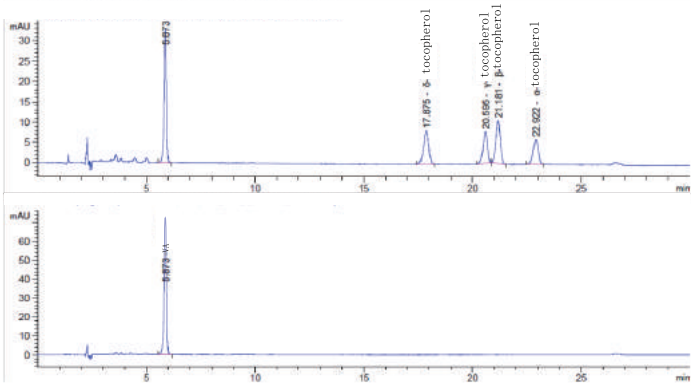
Column:	Ultisil™ XB-C30, 4.6 ×250 mm, 5 µm		
Mobile Phase:	A: methanol / 1%H_3PO_4=94/6 B: methanol / TBME/ 1% H_3PO_4=16/80/4		
Gradient Program:	Time(min)	A(%)	B(%)
	0	67	23
	15	52	48
	23	0	100
	27	67	33
	30	67	33
Flow Rate:	1.0 mL/min		
Detector:	474 nm		
Temperature:	30 °C		
Injection Volume:	20 µL		

Febuxostat Intermediate



Column:	Ultisil™ XB-C30, 4.6 ×250 mm, 5 μm
Mobile Phase:	Acetonitrile/ water=70/30
Detector :	230 nm
Temperature :	30°C
Flow Rate :	1.0 mL/min
Injection Volume	20 μL

VE(α , β , γ , δ -tocopherol) and VA



Column:	Ultisil™ XB-C30, 4.6 ×250 mm, 5 μm		
Mobile Phase:	A: water B: methanol		
Gradient Program:	Time(min)	A(%)	B(%)
	0	4	96
	13	4	96
	20	0	100
	24.5	4	96
	30	4	96
Flow Rate:	0.8 mL/min		
Detector:	294/325 nm		
Temperature:	20°C		
Injection Volume:	10 μL		

Ordering Information

Ultisil™ XB-C30

Particle size	Column ID (mm)	Column Length (mm)										Guard Cartridge	Guard Column Holder
		30	33	50	75	100	125	150	200	250	300		
3 μm 120 Å	2.1	00223-21009	09223-21009	00223-21010	00223-21011	00223-21012	00223-21013	00223-21014	00223-21015	00223-21016	-	00808-23013	00808-01107
	3.0	00223-21018	-	00223-21019	00223-21020	00223-21021	00223-21022	00223-21023	00223-21024	00223-21025	-	00808-23013	00808-01107
	4.0	00223-21027	-	00223-21028	00223-21029	00223-21030	00223-21031	00223-21032	00223-21033	00223-21034	-	00808-03035	00808-01101
	4.6	00223-21036	11223-21036	00223-21037	00223-21038	00223-21039	00223-21040	00223-21041	00223-21042	00223-21043	-	00808-03035	00808-01101
5 μm 120 Å	2.1	00223-31009	09223-31009	00223-31010	00223-31011	00223-31012	00223-31013	00223-31014	00223-31015	00223-31016	-	00808-24024	00808-01107
	3.0	00223-31018	-	00223-31019	00223-31020	00223-31021	00223-31022	00223-31023	00223-31024	00223-31025	-	00808-24024	00808-01107
	4.0	00223-31027	-	00223-31028	00223-31029	00223-31030	00223-31031	00223-31032	00223-31033	00223-31034	00223-31035	00808-04035	00808-01101
	4.6	00223-31036	11223-31036	00223-31037	00223-31038	00223-31039	00223-31040	00223-31041	00223-31042	00223-31043	00223-31044	00808-04035	00808-01101
10 μm 120 Å	4.6	-	-	-	-	-	-	00223-41041	00223-41042	00223-41043	00223-41044	00808-05013	00808-01101

Don't see your needed size or format? Contact Welch or your local distributor for other dimensions.