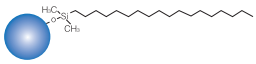
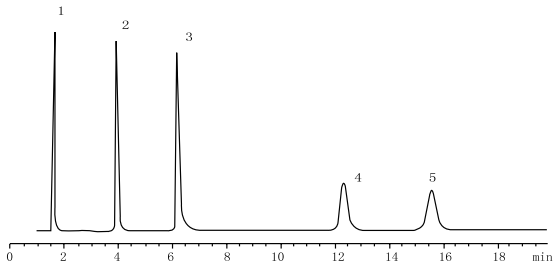
Ultisil™ XB-C18—Universal HPLC Analytical Column

Ultisil™ XB-C18 is the most commonly used column in the market. It can substitute Waters Symmetry C18, Agilent Zorbax XDB C18, Phenomenex Luna C18, Supelcosil LC-18-DB, YMC ODS-AM, Alltima C18, GL, Inertsil ODS-2 etc. XB-C18 has high theoretical plates and peak capacity, so it's suitable for analysis of complex samples.

Ultisil™ XB-C18

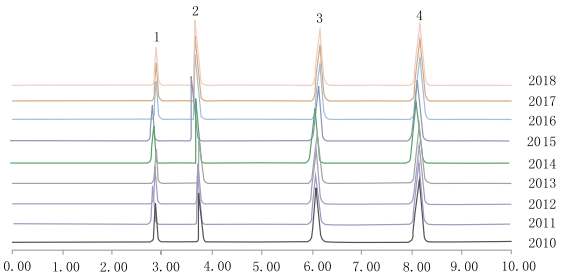
Structural Formula	
pH Range	1.5-10.0
Particle Size	3 μm, 5 μm, 10 μm
Surface Area(m^2/g)	320(120 Å), 90(300 Å)
Carbon Loading(%)	17(120 Å), 8(300 Å)
USP List	L1
Endcapped	Yes

Separation of Basic Compounds Antidepressant at pH 7.0



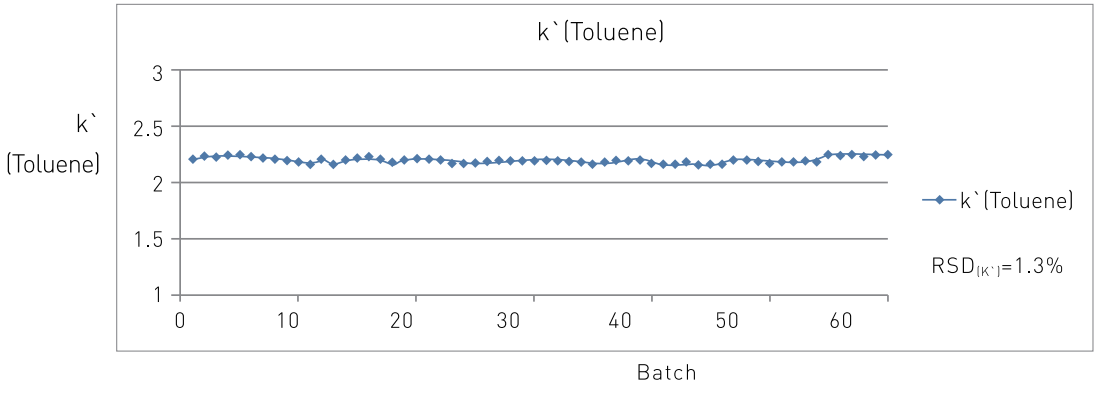
Column:	Ultisil™ XB-C18, 4.6 ×150 mm, 5 μm	
Mobile Phase:	20 mM phosphate(pH 7.0) / methanol=20 / 80	
Flow rate:	1.0 mL/min	
Detector:	215 nm	
Temperature:	25°C	
Samples:	1) Uracil 3) Ortriptyline 5) Trimipramine	2) Ropranolol 4) Amitryptyline

Comparison of Peak Shape between Batch to Batch

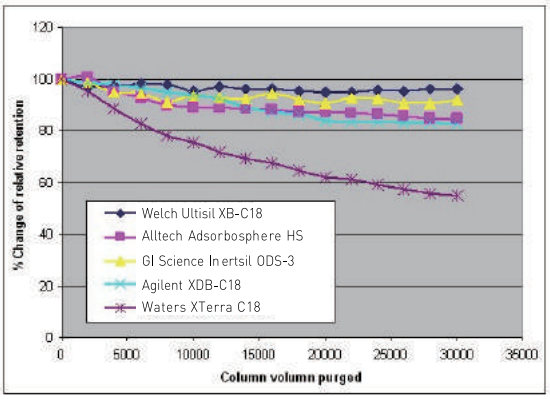


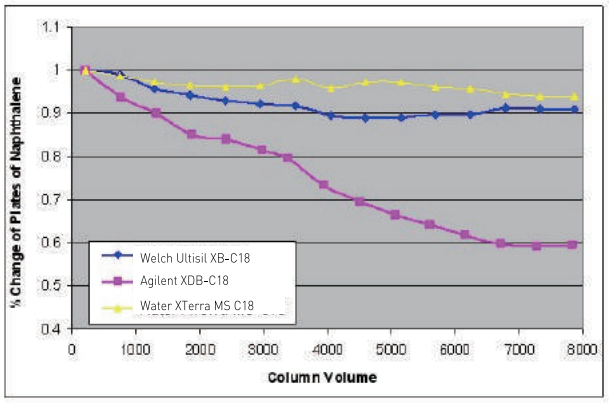
Column:	Ultisil™ XB-C18, 4.6 ×250 mm, 5 μm	
Mobile Phase:	Methanol / water=75 / 25	
Flow rate:	1.0 mL/min	
Detector:	254 nm	
Temperature:	25°C	
Samples:	1) Uracil 3) 4-chloronitrobenzen	2) Phenol 4) Methylbenzene

Capacity Factor(K') of Batch to Batch Reproducibility



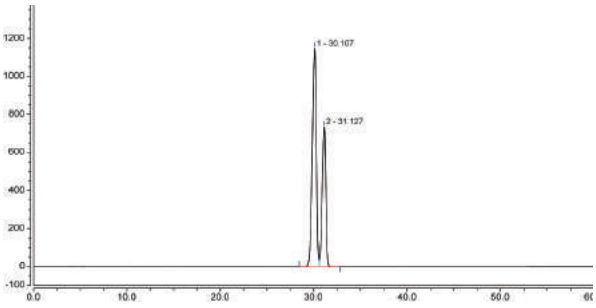
Excellent Stability at Low pH and High pH





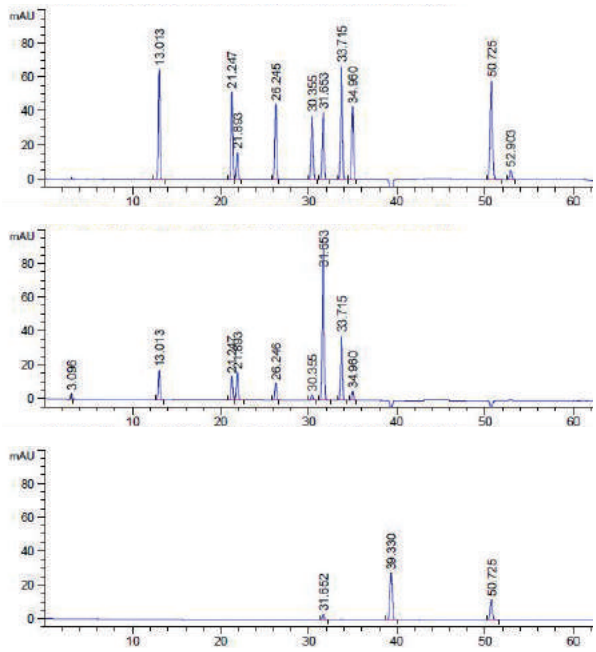
The stability of XB-C18 is better than other brand columns under pH 1.3 or under pH 10.

Argatroban



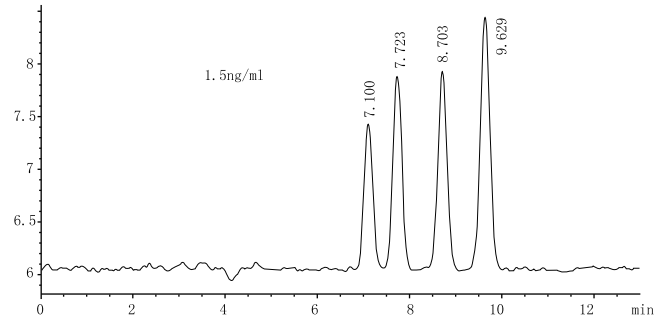
Column:	Ultisil™ XB-C18, 4.6 ×250 mm, 3 μm
Mobile Phase:	Mobile Phase A: 10 mmol/L ammonium acetate Mobile Phase B: acetonitrile/methanol=50/30
Gradient Program:	Time(min) A B 0 60 40 20 60 40 35 50 50 50 20 80 60 20 80 60.1 60 40 80 60 40
Flow Rate:	0.6 mL/min
Detector:	259 nm
Temperature:	50 °C
Injection Volume:	10 μL
Reference Sample:	S-argatroban, R-argatroban,

Paracetamol Injection USP 36



Column:	Ultisil™ XB-C18, 4.6 ×250 mm, 5 μm
Mobile Phase:	A: methanol / water / acetic acid =50/950/1 B: methanol / water / acetic acid =50/500/1
Gradient Program:	Time(min) A B 0 82 18 8 82 18 53 0 100 58 0 100 59 82 18 73 82 18
Flow Rate:	0.9 mL/min
Detector:	254 nm, 275 nm, 317 nm
Temperature:	40°C
Injection Volume:	20 μL
Reference Sample:	L-hydroxyproline, glycine, alanine, L-proline

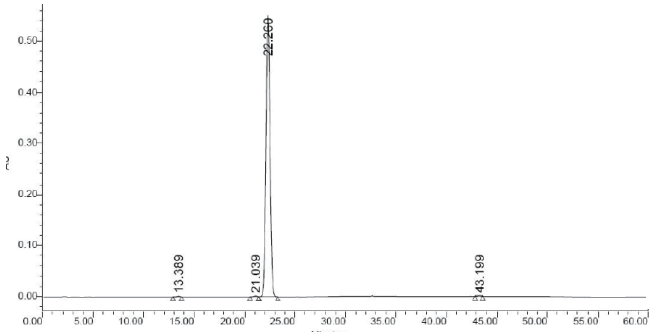
Aflatoxin



Column:	Ultisil™ XB-C18, 4.6 ×250 mm, 5 µm
Mobile Phase:	Water / methanol / acetonitrile=46/40/14
Flow Rate:	1.0 mL/min
Detector:	Excitation wavelength: 360 nm Emission wavelength: 450 nm Gain:17
Temperature:	30°C
Injection Volume:	Post -column photo chemical derivation (254 nm)

Aflatoxin B1, B2, G1, G2 mixed standards, meets separation requirements

Progesterone(EP 5.0)



Column:	Ultisil™ XB-C18, 4.6 ×150 mm, 5 µm
Mobile Phase:	A: water B: acetonitrile
Gradient Program:	Time(min) A B 0-20 50 50 20-27 50-20 50-80 27-45 20 80 45-50 50 50
Flow Rate:	0.9 mL/min
Detector:	254 nm, 275 nm, 317 nm
Temperature:	40°C
Injection Volume:	20 µL
Reference Sample:	L-hydroxyproline, glycine, alanine, L-proline

Ordering Information

Ultisil™ XB-C18

Particle size	Column ID (mm)	Column Length (mm)										Guard Cartridge	Guard Column Holder
		30	33	50	75	100	125	150	200	250	300	10mm length	
3 µm	2.1	00201-21009	09201-21009	00201-21010	00201-21011	00201-21012	00201-21013	00201-21014	00201-21015	00201-21016	-	00808-23001	00808-01107
120 Å	3.0	00201-21018	-	00201-21019	00201-21020	00201-21021	00201-21022	00201-21023	00201-21024	00201-21025	-	00808-23001	00808-01107
	4.0	00201-21027	-	00201-21028	00201-21029	00201-21030	00201-21031	00201-21032	00201-21033	00201-21034	-	00808-03001	00808-01101
	4.6	00201-21036	11201-21036	00201-21037	00201-21038	00201-21039	00201-21040	00201-21041	00201-21042	00201-21043	-	00808-03001	00808-01101
5 µm	2.1	00201-31009	09201-31009	00201-31010	00201-31011	00201-31012	00201-31013	00201-31014	00201-31015	00201-31016	-	00808-24001	00808-01107
120 Å	3.0	00201-31018	-	00201-31019	00201-31020	00201-31021	00201-31022	00201-31023	00201-31024	00201-31025	-	00808-24001	00808-01107
	4.0	00201-31027	-	00201-31028	00201-31029	00201-31030	00201-31031	00201-31032	00201-31033	00201-31034	00201-31035	00808-04001	00808-01101
	4.6	00201-31036	11201-31036	00201-31037	00201-31038	00201-31039	00201-31040	00201-31041	00201-31042	00201-31043	00201-31044	00808-04001	00808-01101
10 µm	4.0	-	-	-	-	-	-	00201-41032	00201-41033	00201-41034	00201-41035	00808-05001	00808-01101
120 Å	4.6	-	-	-	-	-	-	00201-41041	00201-41042	00201-41043	00201-41044	00808-05001	00808-01101

300 Å pore size column provided. Please contact welch or your local distributor for other dimensions.