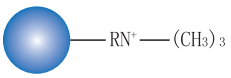
Ultisil™ Ion Exchange Column (XB-SAX&XB-SCX)

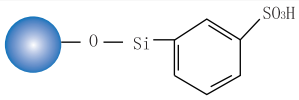
Ultisil™ ion exchange columns are available for both Strong Anion Exchange (SAX) and Strong Cation Exchange (SCX) columns. The SCX/SAX columns are silica based with high resolution and high efficiency.
Ultisil™ SAX is a polar bonded phase, consisting of an ammonium-functionalized silane, while Ultisil™ SCX is a classical strong cation exchange, consisting of a covalently bonded aromatic sulfonic acid moiety.

- **Organic modifiers such as acetonitrile and methanol may be used with SAX and SCX columns, within organic/buffer solubility constraints**
- **Retention can be controlled by varying pH, ionic strength and organic modifier content.**

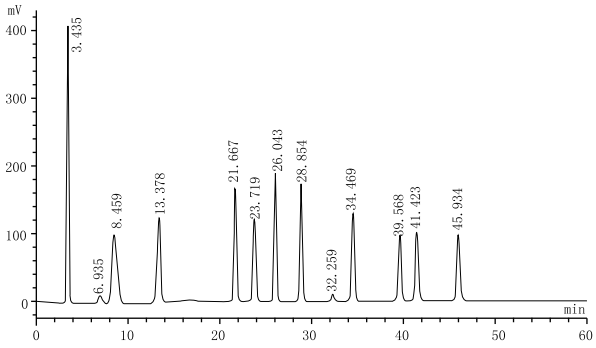
Ultisil™ XB-SAX

Structural Formula	
pH Range	2.0-8.0
Particle Size	3 μm, 5 μm, 10 μm
Surface Area(m^2/g)	320(120 Å), 90(300 Å)
Carbon Loading(%)	7.5(120 Å), 1.5(300 Å)
USP List	L14
Endcapped	No

Ultisil™ XB-SCX

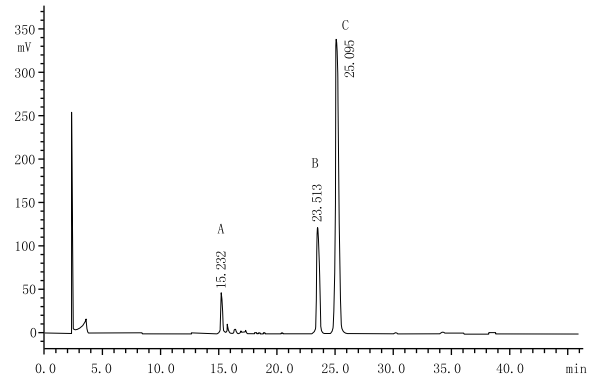
Structural Formula	
pH Range	2.0-8.0
Particle Size	3 μm, 5 μm, 10 μm
Surface Area(m^2/g)	320(120 Å), 90(300 Å)
Carbon Loading(%)	12(120 Å), 5(300 Å)
USP List	L9
Endcapped	No

13 Heparin Disaccharides



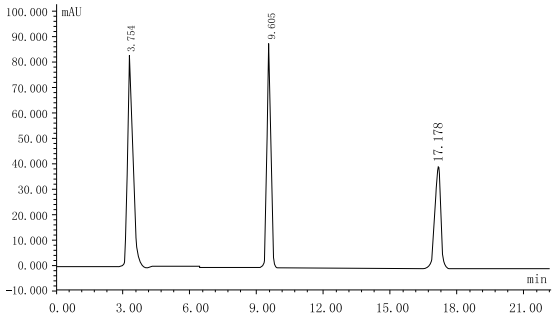
Column:	Ultisil™ XB-SAX, 3.0 ×250 mm, 5 μm
Mobile Phase:	A: weight 0.308 g NaH_2PO_4 to 1000 mL volumetric flask, add 950 mL water to dissolve it, adjust pH 2.9 with H_3PO_4, then add water to scale mark B: weight 122 g $NaClO_4$ to 1000 mL volumetric flask, add 950 mL mobile phase A to dissolve, adjust pH 3.0 with H_3PO_4, then add mobile phase A to scale mark.
Detector:	234 nm, 202 nm
Temperature:	50°C
Flow Rate:	0.45 ml/min
Injection Volume:	10 μL

Chondroitin Sulfate



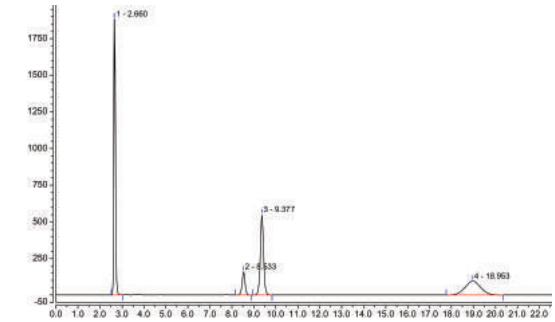
Column:	Ultisil™ XB-SAX, 4.6 ×250 mm, 5 μm
Mobile Phase:	A: water, adjust pH 3.5 with diluted HCl B: 2 mol/L NaCl, adjust pH 3.5 with diluted HCl
Detector:	232 nm
Temperature:	Ambient
Flow Rate:	1.0 mL/min
Injection Volume:	20 μL
Mixed Standards:	Chondroitin disaccharide(B) 6- sulfated chondroitin disaccharide(C) 4- sulfated chondroitin disaccharide(A)

Metformin HCL



Column:	Ultisil™ XB-SCX, 4.6 ×250 mm, 5 µm
Mobile Phase:	1.7% $NH_4H_2PO_4$(pH 3.0 adjusted by H_3PO_4)
Detector:	218nm
Temperature:	Ambient
Flow Rate:	1.0 mL/min
Injection Volume:	10 µL
Samples In Order:	Icyandiamide, melamine, metformin HCL

Orazamide



Column:	Ultisil™ XB-SCX, 4.6 ×250 mm, 5 µm
Mobile Phase:	1.0% $NH_4H_2PO_4$(pH 3.0 adjusted by H_3PO_4)
Detector:	215 nm
Temperature:	30 °C
Flow Rate:	1.0 mL/min
Injection Volume:	10 µL
Samples In Order:	Orotic acid, Pyridinepropanimidamide, 4-Amino-5-imidazolecarboxamide hydrochloride and AZO

Ordering Information

Ultisil™ XB-SAX

Particle size	Column ID (mm)	Column Length (mm)					Guard Cartridge	Guard Column Holder
		50	100	150	200	250	10mm length	
3 µm 120 Å	2.1	00213-21010	00213-21012	00213-21014	00213-21015	00213-21016	00808-23008	00808-01107
	3.0	00213-21019	00213-21021	00213-21023	00213-21024	00213-21025	00808-23008	00808-01107
	4.0	00213-21028	00213-21030	00213-21032	00213-21033	00213-21034	00808-03008	00808-01101
	4.6	00213-21037	00213-21039	00213-21041	00213-21042	00213-21043	00808-03008	00808-01101
5 µm 120 Å	2.1	00213-31010	00213-31012	00213-31014	00213-31015	00213-31016	00808-24009	00808-01107
	3.0	00213-31019	00213-31021	00213-31023	00213-31024	00213-31025	00808-24009	00808-01107
	4.0	00213-31028	00213-31030	00213-31032	00213-31033	00213-31034	00808-04009	00808-01101
	4.6	00213-31037	00213-31039	00213-31041	00213-31042	00213-31043	00808-04009	00808-01101
10 µm 120 Å	4.6	-	-	00213-41041	00213-41042	00213-41043	00808-05009	00808-01101

Ultisil™ XB-SCX

Particle size	Column ID (mm)	Column Length (mm)					Guard Cartridge	Guard Column Holder
		50	100	150	200	250	10mm length	
3 µm 120 Å	2.1	00212-21010	00212-21012	00212-21014	00212-21015	00212-21016	00808-23012	00808-01107
	3.0	00212-21019	00212-21021	00212-21023	00212-21024	00212-21025	00808-23012	00808-01107
	4.0	00212-21028	00212-21030	00212-21032	00212-21033	00212-21034	00808-03033	00808-01101
	4.6	00212-21037	00212-21039	00212-21041	00212-21042	00212-21043	00808-03033	00808-01101
5 µm 120 Å	2.1	00212-31010	00212-31012	00212-31014	00212-31015	00212-31016	00808-24011	00808-01107
	3.0	00212-31019	00212-31021	00212-31023	00212-31024	00212-31025	00808-24011	00808-01107
	4.0	00212-31028	00212-31030	00212-31032	00212-31033	00212-31034	00808-04011	00808-01101
	4.6	00212-31037	00212-31039	00212-31041	00212-31042	00212-31043	00808-04011	00808-01101
10 µm 120 Å	4.6	-	-	00212-41041	00212-41042	00212-41043	00808-05011	00808-01101

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