

HyperCHROM BEH Column



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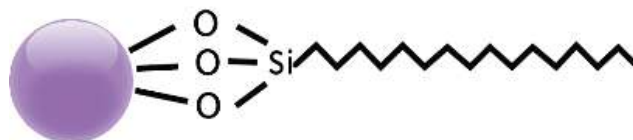
Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

►► HyperCHROM BEH Column

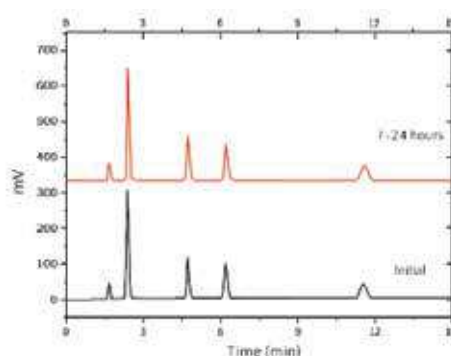
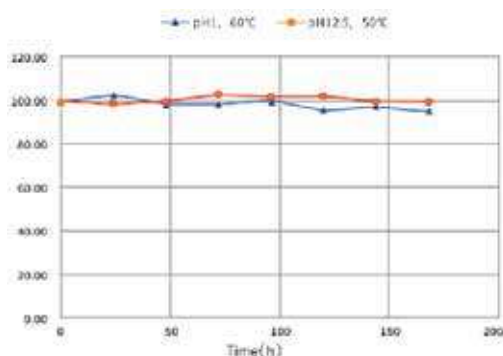
ATL series columns are the latest generation of hybrid silica columns developed and launched by ATL. The hybrid silica combines the advantages of both organic and inorganic packing, with the high column efficiency, high mechanical strength and retention stability of pure silica packing, and the wide pH range stability and acidic inhibition of silanol groups of polymer packing, which can maintain a good column life even under extreme conditions.



- Hybridised silica can reduce the surface silicone hydroxyl effect;
- Significant reduction in bonding phase loss through triple bonding;
- Excellent resistance to acids and bases (pH 1.0 -12.5) and good column life even under extreme conditions.
- Double capping technology for maximum elimination of silicone hydroxyl residues.
- Excellent selectivity and batch repeatability.
- Pore sizes [130Å, 200Å and 300Å] for applications ranging from small molecule analysis to large molecule biology Pharmaceutical applications

►► Acid and alkali tolerance

Good stability at low and high pH, pH=1.0 and pH=12.5 mobile phases, with chromatographic performance remaining unchanged after 10 days of continuous flushing at high temperature conditions.



►► Batch repeatability

The homogeneous particle size of the hybrid silica, which has very high batch stability and reproducibility.



►► Parameters

Bonding	C18
Bonding Method	Three-button bonding
Particle Size(μm)	1.8, 3, 5, 10
Pore Size(Å)	130
Surface Area (m ² /g)	180
Carbon Load(%)	18
Endcapped	Double Endcapped
pH Range	1.0-12.5

►► Aflatoxin

Column : ATL HyperCHROM 5μm, 4.6mm X 250mm

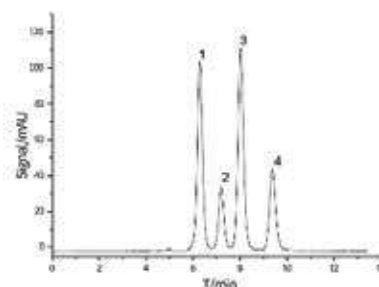
Mobile phase: Methanol / acetonitrile / water = 29/17/54(V/V/V)

Flow: 1.2ml/min

Detector: Excitation wavelength: 333nm, Emission wavelength: 460nm

Injection volume: 10μL

Column temperature: 40°C



No	Compound	Retention time	Plate[N/m]	Trailing	Separation
1	AflatoxinG2	6.284	15860	1.02	/
2	AflatoxinG1	7.19	18224	1.05	2.20
3	AflatoxinB2	8.02	21376	1.10	1.92
4	AflatoxinB1	9.375	24716	1.11	2.96

►► Parameters

Bonding Phase	Polarity inlay C18
Bonding Method	Three-button bonding
Particle Size(μm)	1.8, 3, 5
Pore Size(Å)	130
Surface Area (m ² /g)	180
Carbon Load(%)	12
Endcapped	Double Endcapped
pH Range	2.0-11.0

►► Loratadine

Column :ATL HyperCHROM 5 μ m, 4.6mm X 250mm

Mobile phase: A: acetonitrile; B:0.1 % aqueous phosphoric acid, gradient elution

Flow: 1.2ml/min

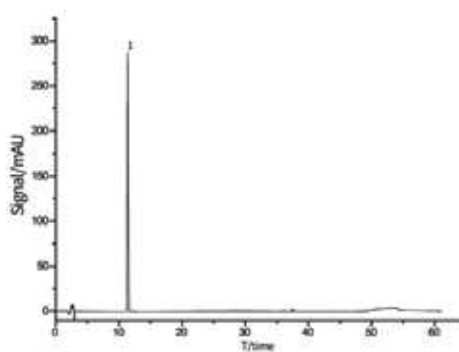
Detector:254nm

Injection volume:20 μ L

Column temperature:

Room temperature

Time(min)	A(%)	B(%)
0	25	75
20	50	50
30	60	40
35	70	30
45	70	30
50	25	75



No	Compound name	Retention time [min]	Trailing factor	Plate[N/m]
1	Loratadine	11.386	1.43	143300

►► Simvastatin

Column :ATL HyperCHROM 5 μ m, 4.6mm X 250mm

Mobile phase: A: acetonitrile; potassium dihydrogen phosphate solution (pH adjusted to 4.4 with H₃PO₄) = 65:35

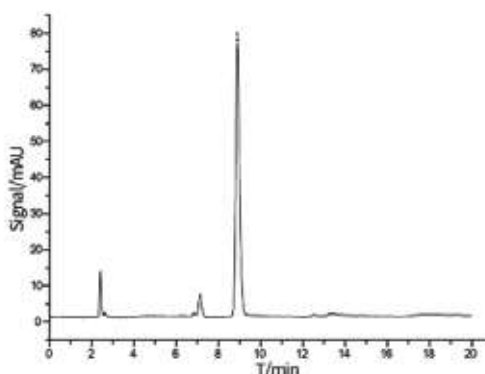
Flow: 1.5ml/min

Detector:238nm

Injection volume:10 μ L

Column temperature: 40°C

Time(min)	A(%)	B(%)
0	25	75
20	50	50
30	60	40
35	70	30
45	70	30
50	25	75



No	Compound name	Retention time [min]	Trailing factor	Plate[N/m]
1	Amoxicillin	6.992	0.964	28500

►► Parameters

Bonding Phase	C8
Bonding Method	Three-button bonding
Particle Size(μm)	3, 5
Pore Size(Å)	130
Surface Area (m ² /g)	180
Carbon Load(%)	14
Endcapped	Double Endcapped
pH Range	1.0-12.5

►► Omeprazole Enteric Capsules

Column :ATL HyperCHROM 5μm, 4.6mm X 150mm

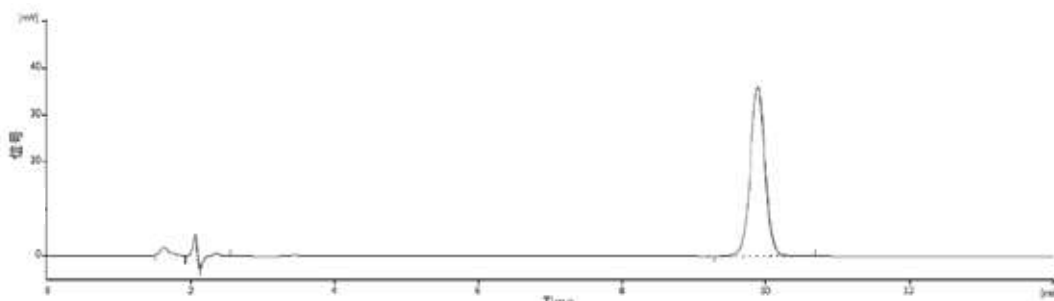
Mobile phase: Acetonitrile: 0.01 mol/L disodium hydrogen phosphate solution
(pH adjusted to 7.6 with phosphoric acid)= 25:75 (V/V)

Flow:1.0mL/min

Detector:302nm

Injection volume:20μL

Column temperature: Room temperature



No	Compound name	Retention time [min]	Trailing factor	Plate[N/m]
Omeprazole	No1	9.890	1.012	11300 , 75700
	No70	9.912	1.090	10640 , 70900

►► Parameters

Bonding Phase	Phenyl
Bonding Method	Three-button bonding
Particle Size(μm)	3, 5
Pore Size(Å)	130
Surface Area (m ² /g)	180
Carbon Load(%)	15
Endcapped	Double Endcapped
pH Range	1.0-12.5

►► Lignan in honeysuckle

Column : ATL HyperCHROM Phenyl 5 μ m, 4.6mm X 150mm

Mobile phase: acetonitrile, B: 0.5% glacial acetic acid solution, gradient elution

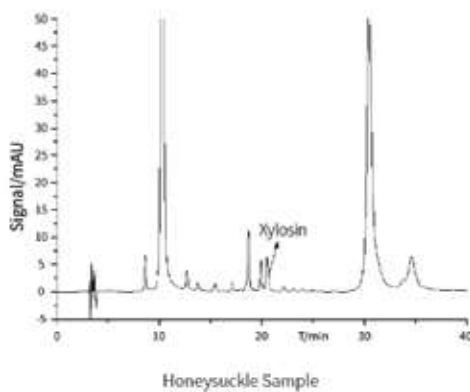
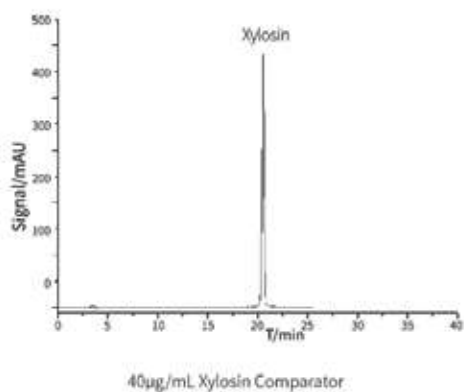
Flow : 1.0mL/min

Detector : 350nm

Injection volume : 10 μ L

Column temperature : 25°C

Time/min	A%	B%
0-15	10-20	90-80
15-30	20	80
30-40	20-30	80-70



Chromatographic parameters table

No	Compound name	Retention time [min]	Trailing factor
Comparator	Xylosin	20.502	66200
Sample	Xylosin	20.508	36000

Plate[N/m] Separation

0.950	/
1.005	1.6



Bonding phase	Particle size and pore size	Dimnesion
HyperCHROM BEH T-Cl8	5µm 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm
HyperCHROM BEH T-Cl8	3µm 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm ID2.1*30mm ID2.1*50mm ID2.1*100mm ID2.1*150m m
HyperCHROM BEH AQ-Cl8	5µm 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm
HyperCHROM BEH AQ-Cl8	3µm 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm ID22.1*30mm ID22.1*50mm ID22.1*100mm ID22.1*150mm
HyperCHROM BEH T-CS	5µm 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm
HyperCHROM BEH T-CS	3µm 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm ID2.1*30mm ID2.1*50mm ID2.1*10mm ID2.1*150mm

Bonding phase	Particle size and pore size	Dimnesion
HyperCHROM BEH Phenyl	5 μ m 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm
HyperCHROM BEH Phenyl	3 μ m 130Å	ID4.6*50mm ID4.6*100mm ID4.6*150mm ID4.6*250mm ID2.1*30mm ID2.1*50mm ID2.1*100mm ID2.1*150mm
HyperCHROM BEH T-Cl8	1.8 μ m 130Å	ID2.1*30mm ID2.1*50mm ID2.1*100mm ID2.1*150mm
HyperCHROM BEH AQ-Cl8	1.8 μ m 130Å	ID2.1*30mm ID2.1*50mm ID2.1*100mm ID2.1*150mm

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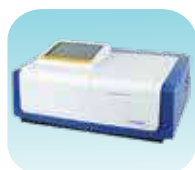
Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



About Analytical Technologies

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