

avantor™



BAKERBOND® Q2100

New Generation UHPLC and HPLC columns



High efficiency HPLC
and UHPLC columns

C18, C8, Phenyl-Hexyl
and Sil phases

1.8 μm , 3 μm and
5 μm particles

BAKERBOND Q2100 UHPLC and HPLC Columns

BAKERBOND UHPLC and HPLC columns are based on ultra-high purity spherical silica. Available in 1.8 μm , 3 μm and 5 μm particle sizes with narrow particle size distribution, BAKERBOND phases achieve high efficiency separations, run after run. C18, C8, Phenyl-Hexyl and Sil chemistries are available to provide you with the selectivities you need to achieve your desired separation.

BAKERBOND phases produce sharp, highly symmetrical peaks for acidic, neutral and basic analytes. Every column is individually tested and supplied with a certificate of

analysis, so you can be confident of its performance. Each phase has excellent column-to-column and batch-to-batch reproducibility

The robust bonding and column packing technology used to manufacture BAKERBOND UHPLC and HPLC columns results in phases that are highly stable with long column lifetimes.

BAKERBOND Q2100 HPLC and UHPLC columns are manufactured in the UK in ISO9000 and ISO14000 accredited facilities.

Phase Specifications

BAKERBOND Q2100 Phase	Particle Size	Surface Area	Pore Size	Carbon Load	Recommended pH Range	USP Listing
C18	1.8, 3, and 5 μm	320 $\text{m}^2 \text{g}^{-1}$	110 \AA	20.0%	2.0 – 8.0	L1
C8	1.8, 3, and 5 μm	320 $\text{m}^2 \text{g}^{-1}$	110 \AA	11.7%	2.0 – 8.0	L7
Phenyl-Hexyl	1.8, 3, and 5 μm	320 $\text{m}^2 \text{g}^{-1}$	110 \AA	15.0%	2.0 – 8.0	L11
Sil	1.8, 3, and 5 μm	320 $\text{m}^2 \text{g}^{-1}$	110 \AA	–	2.0 – 8.0	L3

BAKERBOND Q2100 Applications

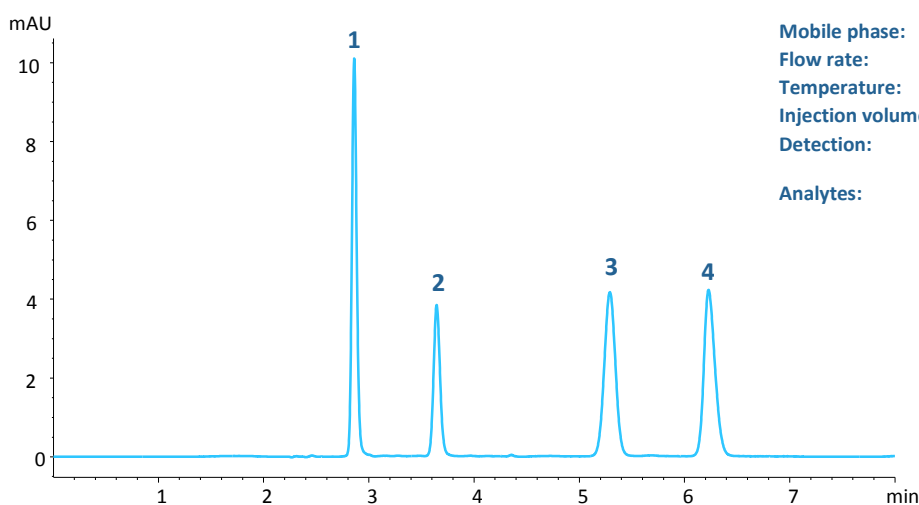
Analysis of Catecholamines

BAKERBOND Q2100 C18, 5 μm , 4.6 x 250 mm
(p/n: 7411-24)

Mobile phase: 20 mM KH_2PO_4 pH 2.7 in 3:97 MeOH/ H_2O
Flow rate: 1.0 mL min^{-1}
Temperature: 30 $^\circ\text{C}$
Injection volume: 5 μL
Detection: UV, 270 nm

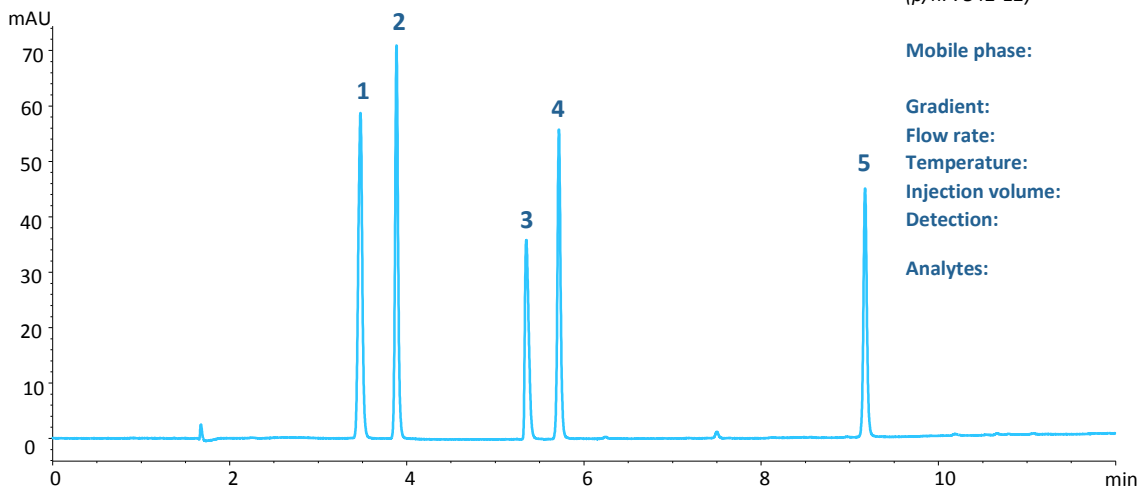
Analytes:

- 1 Norepinephrine
- 2 Epinephrine
- 3 L-DOPA
- 4 Dopamine



BAKERBOND Q2100 Applications (continued)

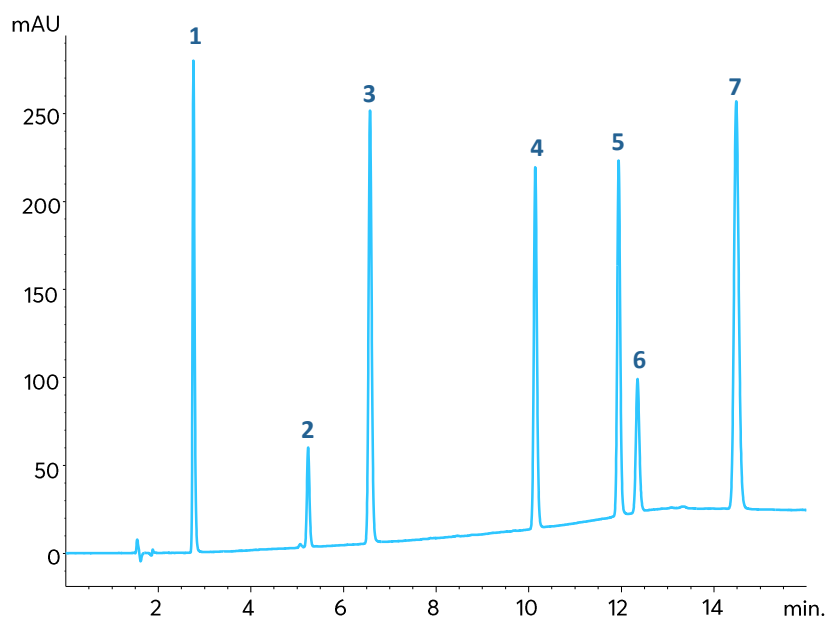
Cold and Flu Medications



BAKERBOND Q2100 C8, 1.8 μ m, 2.1 x 100 mm
(p/n: 7342-12)

Mobile phase: A: 0.1% Formic acid in H₂O
B: 0.1% Formic acid in MeCN
Gradient: 5 to 95 % B over 10 min.
Flow rate: 0.2 mL min⁻¹
Temperature: 35 °C
Injection volume: 2 μ L
Detection: 275 nm
Analytes: 1 Paracetamol
2 Caffeine
3 Dextromethorphan
4 Aspirin
5 Ibuprofen

Vitamins



BAKERBOND Q2100 Phenyl-Hexyl, 3 μ m, 4.6 x 150 mm
(p/n: 7358-14)

Mobile phase: A: 20 mM KH₂PO₄ pH 2.7 in H₂O
B: 20 mM KH₂PO₄ pH 2.7 in MeOH/H₂O 50:50
Gradient: 20 to 70% B over 10 min.
Flow rate: 1.0 mL min⁻¹
Temperature: 40 °C
Injection volume: 10 μ L
Detection: 210 nm
Analytes: 1 Pyridoxine (B6)
2 Pantothenic acid (B5)
3 p-Aminobenzoic acid
4 Folic acid (B9)
5 Cyanocobalamin (B12)
6 Biotin (B7)
7 Riboflavin (B2)

Cross Reference Guide – C18

Bakerbond Q2100 C18 columns are a recommended alternative to the following leading and legacy C18 column brands:

Column Brand	Manufacturer	1.8 µm	3 µm		5 µm	
		2.1 x 50 mm	2.1 x 150 mm	4.6 x 150 mm	4.6 x 150 mm	4.6 x 250 mm
BAKERBOND Q2100 C18	Avantor	7395-52	7405-42	7405-14	7411-14	7411-24
Acclaim 120 C18	Thermo Scientific	-	059130	059133	059148	059149
Ascentis C18	Supelco	-	581302-U	581322-U	581324-U	581325-U
Betasil C18	Thermo Scientific	-	-	-	70105-154630	70105-254630
Discovery C18	Supelco	-	-	-	504955	504971
Discovery HS C18	Supelco	-	569255-U	569252-U	568522-U	568523-U
Force C18	Restek	9634252	9634362	9634365	9634565	9634575
Fortis C18 ¹	Fortis Technologies	F18-0203-01	F18-0207-03	F18-0507-03	F18-0507-05	F18-0509-05
GraceSmart C18	Grace	-	5141754	5141752	5138812	5138810
Hypersil ODS	Thermo Scientific	-	30103-152130	30103-154630	30105-154630	30105-254630
Hypersil BDS C18	Thermo Scientific	-	28103-152130	28103-154630	28105-154630	28105-254630
Hypersil GOLD C18 Selectivity ²	Thermo Scientific	25002-052130	25003-152130	25003-154630	25005-154630	25005-254630
Hypersil HyPURITY C18	Thermo Scientific	-	22103-152130	22103-154630	22105-154630	22105-254630
Inertsil ODS	GL Sciences	-	-	-	5020-02124	5020-02128
Inertsil ODS-2	GL Sciences	-	-	-	5020-01124	5020-01128
Inertsil ODS-3 ³	GL Sciences	5020-84652	5020-04415	5020-01771	5020-01731	5020-01732
Inertsil ODS-3V	GL Sciences	-	5020-30115	5020-30145	5020-01801	5020-01802
Inertsil ODS-4 ³	GL Sciences	5020-81202	5020-04015	5020-04045	5020-03945	5020-03946
Inertsil ODS-4V	GL Sciences	-	5020-30215	5020-30245	5020-10901	5020-10902
InertSustain C18 ³	GL Sciences	5020-14352	5020-07415	5020-07445	5020-07345	5020-07346
LiChrosorb RP-18	Merck	-	-	-	1.50009.7052	1.51902.0001
LiChrospher RP-18	Merck	-	-	-	1.50601.0001	1.50602.0001
LiChrospher RP-18e	Merck	-	-	-	1.50604.0001	1.50605.0001
Luna C18(2) ⁴	Phenomenex	-	00F-4251-B0	00F-4251-E0	00F-4252-E0	00G-4252-E0
Nucleosil 100 C18	Macherey-Nagel	-	-	720949.46	720120.46	720014.46
Nucleosil 120 C18	Macherey-Nagel	-	-	720740.46	720730.46	720041.46
Nucleosil C18 HD	Macherey-Nagel	-	-	720193.46	720294.46	720280.46
Nucleodur C18 Gravity ⁵	Macherey-Nagel	760079.20	760083.20	760083.46	760103.46	760101.46
Nucleodur C18 ec ⁵	Macherey-Nagel	-	760053.20	760053.46	760008.46	760002.46
Prodigy ODS-2 ⁵	Phenomenex	-	-	-	00F-3300-E0	00G-3300-E0
Prodigy ODS-3 ⁵	Phenomenex	-	00F-4222-B0	00F-4222-E0	00F-4097-E0	00G-4097-E0
Prodigy ODS-3V ⁵	Phenomenex	-	-	00F-4243-E0	00F-4241-E0	00G-4241-E0
Purospher STAR RP-18e ³	Merck	1.50646.0001	1.50654.0001	1.50470.0001	1.51455.0001	1.51456.0001
Roc C18	Restek	-	-	9534365	9534565	9534575
SunFire C18 ⁴	Waters	-	186002535	186002554	186002559	186002560
Supelcosil LC-18	Supelco	-	-	58985	58230-U	58298
Supelcosil LC-18-DB	Supelco	-	-	58993	58348	58355-U
Synchronis C18 ¹	Thermo Scientific	97102-052130	97103-152130	97103-154630	97105-154630	97105-254630
Symmetry C18 ⁴	Waters	-	WAT106005	WAT200632	WAT045905	WAT054275
Ultra C18	Restek	-	9174362	9174365	9174565	9174575
Vision HT C18 HighLoad ⁶	Grace	5142546	5151979	5151971	5151970	5151920
Waters Spherisorb ODS1 ⁵	Waters	-	PSS833423	PSS833413	PSS830613	PSS830615
Waters Spherisorb ODS2 ⁵	Waters	-	PSS832123	PSS832113	PSS831913	PSS831915
YMC-Pack ODS-A ⁵	YMC	-	AA12S03-1502WT	AA12S03-1546WT	AA12S05-1546WT	AA12S05-2546WT
YMC-Pack ODS-AM ⁵	YMC	-	AM12S03-1502WT	AM12S03-1546WT	AM12S05-1546WT	AM12S05-2546WT
YMC-Pack Pro C18 ^{3,5}	YMC	AS12S02-0502WT	AS12S03-1502WT	AS12S03-1546WT	AS12S05-1546WT	AS12S05-2546WT
Zorbax Eclipse XDB-C18 ⁴	Agilent	927700-902	930990-902	963967-902	993967-902	990967-902
Zorbax Eclipse Plus C18 ⁴	Agilent	959757-902	959763-902	959963-902	959993-902	959990-902
Zorbax C18	Agilent	-	-	-	883952-702	880952-702
Zorbax Rx-C18 ⁴	Agilent	-	-	863967-902	883967-902	880967-902
Zorbax SB-C18 ⁴	Agilent	857700-902	830990-902	863953-902	883975-902	880975-902

¹ 1.7 µm; ² 1.9 µm; ³ 2 µm; ⁴ 3.5 µm; ⁵ 2.0 mm ID; ⁶ 1.5 µm

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Cross Reference Guide – C8

Bakerbond Q2100 C8 columns are a recommended alternative to the following leading and legacy C8 column brands:

Column Brand	Manufacturer	1.8 µm	3 µm		5 µm	
		2.1 x 50 mm	2.1 x 150 mm	4.6 x 150 mm	4.6 x 150 mm	4.6 x 250 mm
BAKERBOND Q2100 C8	Avantor	7342-52	7354-42	7352-14	7378-14	7378-24
Acclaim 120 C8	Thermo Scientific	-	059124	059127	059140	059141
Ascentis C8	Supelco	-	581402-U	581408-U	581424-U	581425-U
Betasil C8	Thermo Scientific	-	-	-	70205-154630	70205-254630
Discovery C8	Supelco	-	-	-	59353-U	59354-U
Fortis C8 ¹	Fortis Technologies	F08-0203-01	F08-0207-03	F08-0507-03	F08-0507-05	F08-0509-05
Hypersil MOS	Thermo Scientific	-	30203-152130	30203-154630	30205-154630	30205-254630
Hypersil BDS C8	Thermo Scientific	-	-	28203-154630	28205-154630	28205-254630
Hypersil GOLD C8 ²	Thermo Scientific	25202-052130	25203-152130	25203-154630	25205-154630	25205-254630
Inertsil C8	GL Sciences	-	-	-	5020-01224	5020-01228
Inertsil C8-3 ³	GL Sciences	5020-84931	5020-04815	5020-01911	5020-01900	5020-01901
Inertsil C8-4 ³	GL Sciences	5020-81282	5020-03975	5020-03996	5020-04085	5020-04086
InertSustain C8 ³	GL Sciences	5020-16236	5020-16136	5020-16157	5020-16027	5020-16028
Luna C8(2) ³	Phenomenex	-	00F-4248-B0	00F-4248-E0	00F-4249-E0	00G-4249-E0
LiChrosorb RP-8	Merck	-	-	-	-	1.51903.0001
LiChrospher RP-8	Merck	-	-	-	1.50635.0001	1.50636.0001
LiChrospher RP-8e	Merck	-	-	-	1.50638.0001	1.50639.0001
Nucleosil 100 C8	Macherey-Nagel	-	-	-	720990.46	720013.46
Nucleosil 120 C8	Macherey-Nagel	-	-	-	720735.46	720052.46
Nucleosil C8 HD	Macherey-Nagel	-	-	-	720194.46	720196.46
Nucleodur C8 Gravity ⁴	Macherey-Nagel	760755.20	760658.20	760658.46	760752.46	760753.46
Nucleodur C8 ec ⁴	Macherey-Nagel	-	-	760061.46	760702.46	760703.46
Prodigy C8	Phenomenex	-	-	-	00F-3301-E0	00G-3301-E0
Purospher STAR RP-8e ³	Merck	1.50630.0001	-	-	1.50031.0001	1.50032.0001
Roc C8	Restek	-	-	9533365	9533565	9533575
SunFire C8 ⁵	Waters	-	186002712	186002732	186002737	186002738
Supelcosil LC-8	Supelco	-	-	58983	58220-U	58297
Supelcosil LC-8 DB	Supelco	-	-	58991	58347	58354
Synchronis C8 ¹	Thermo Scientific	97202-052130	-	97203-154630	97205-154630	97205-254630
Symmetry C8 ⁵	Waters	-	WAT106011	WAT200630	WAT045995	WAT054270
Ultra C8	Restek	-	9103362	9103565	9103564	9103575
Waters Spherisorb C8 ⁴	Waters	-	PSS832223	PSS832213	PSS831813	PSS831815
YMC-Pack C8 ⁴	YMC	-	OC12S03-1502WT	OC12S03-1546WT	OC12S05-1546WT	OC12S05-2546WT
YMC-Pack Pro C8	YMC	-	OS12S03-1502WT	OS12S03-1546WT	OS12S05-1546WT	OS12S05-2546WT
Zorbax Eclipse XDB-C8 ⁵	Agilent	927700-906	930990-906	963967-906	993967-906	990967-906
Zorbax Eclipse Plus C8 ⁵	Agilent	959757-906	959763-906	959963-906	959993-906	959990-906
Zorbax Rx-C8 ⁵	Agilent	-	-	-	883967-901	880967-901
Zorbax SB-C8 ⁵	Agilent	857700-906	830990-906	863953-906	883975-906	880975-906

¹ 1.7 µm; ² 1.9 µm; ³ 2 µm; ⁴ 2.0 mm ID; ⁵ 3.5 µm

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Cross Reference Guide – Phenyl-Hexyl

Bakerbond Q2100 Phenyl-Hexyl columns are a recommended alternative to the following leading and legacy phenyl and phenyl-hexyl column brands:

Column Brand	Manufacturer	1.8 µm	3 µm		5 µm	
		2.1 x 50 mm	2.1 x 150 mm	4.6 x 150 mm	4.6 x 150 mm	4.6 x 250 mm
BAKERBOND Q2100 Phenyl-Hexyl	Avantor	7351-52	7358-42	7358-14	7382-14	7382-24
Acclaim 120 Phenyl-1	Thermo Scientific	-	071971	071969	-	079697
Ascentis Phenyl	Supelco	-	-	581610-U	581616-U	581617-U
Hypersil Phenyl	Thermo Scientific	-	-	-	30905-154630	30905-254630
Hypersil BDS Phenyl	Thermo Scientific	-	-	28903-154630	28905-154630	28905-254630
Hypersil GOLD Phenyl ¹	Thermo Scientific	25902-052130	25903-152130	25903-154630	25905-154630	25905-254630
Inertsil Ph	GL Sciences	-	-	-	5020-01324	5020-01328
Inertsil Ph-3 ²	GL Sciences	5020-85131	5020-05015	5020-01931	5020-01920	5020-01921
InertSustain Phenyl ²	GL Sciences	5020-16536	5020-16436	5020-16457	5020-16327	5020-16328
InertSustain Phenylhexyl	GL Sciences	-	5020-89128	5020-89149	5020-89026	5020-89027
Luna Phenyl-Hexyl ³	Phenomenex	-	00F-4256-B0	00F-4256-E0	00F-4257-E0	00G-4257-E0
Nucleosil C ₆ H ₅	Macherey-Nagel	-	-	-	-	720956.46
Nucleodur Phenyl-Hexyl ³	Macherey-Nagel	760563.20	760578.20	760578.46	760588.46	760589.46
Prodigy Phenyl-3	Phenomenex	-	-	-	00F-4298-E0	00G-4298-E0
Purospher STAR Phenyl ²	Merck	1.51013.0001	-	-	1.51919.0001	1.51918.0001
Roc Phenyl-Hexyl	Restek	-	-	9535365	9535565	9535575
Syncronis Phenyl ¹	Thermo Scientific	97902-052130	-	97903-154630	97905-154630	97905-254630
Waters Spherisorb Phenyl	Waters	-	-	PSS833713	PSS830813	PSS830815
YMC-Pack Ph ³	YMC	-	PH12S03-1502WT	PH12S03-1546WT	PH12S05-1546WT	PH12S05-2546WT
Zorbax Eclipse XDB-Phenyl ⁴	Agilent	-	-	963967-912	993967-912	990967-912
Zorbax Eclipse Plus-Phenyl-Hexyl ⁴	Agilent	959757-912	959763-912	959963-912	959993-912	959990-912

¹ 1.7 µm; ² 2 µm; ³ 3.0 mm ID; ⁴ 3.5 µm

Note: Phenyl-Hexyl phases incorporate a C6 alkyl spacer which may result in improved hydrophobicity and increased stability in acidic conditions compared to conventional phenyl bonded phases.

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Cross Reference Guide – Silica

Bakerbond Q2100 Sil columns are a recommended alternative to the following leading and legacy silica column brands

Column Brand	Manufacturer	1.8 μ m	3 μ m		5 μ m	
		2.1 x 50 mm	2.1 x 150 mm	4.6 x 150 mm	4.6 x 150 mm	4.6 x 250 mm
BAKERBOND Q2100 Sil	Avantor	7344-52	7373-42	7373-14	7375-14	7375-24
Ascentis Si	Supelco	-	581502-U	581506-U	581512-U	581513-U
Hypersil Silica	Thermo Scientific	-	-	30003-154630	30005-154630	30005-254630
Hypersil GOLD Silica ¹	Thermo Scientific	25102-052130	25103-152130	25103-154630	25105-154630	25105-254630
Inertsil SIL	GL Sciences	-	5020-04215	5020-01701	5020-01711	5020-01712
Luna Silica(2) ²	Phenomenex	-	00F-4162-B0	00F-4162-E0	00F-4274-E0	00G-4274-E0
Nucleosil SiOH	Macherey-Nagel	-	-	-	-	720099.46
Nucleodur SiOH	Macherey-Nagel	-	-	760172.46	760012.46	760007.46
Roc Silica	Restek	-	-	9530365	9530565	9530575
Purospher STAR Si	Merck	-	-	-	1.50356.0001	1.50357.0001
SunFire Silica	Waters	-	-	-	186003453	186003454
Supelcosil LC-Si	Supelco	-	-	58981	58200-U	58295
Synchrom Silica ³	Thermo Scientific	97002-052130	-	97003-154630	97005-154630	97005-254630
Ultra Silica	Restek	-	9100362	9100365	9100565	9100575
Waters Spherisorb Silica	Waters	-	-	PSS832013	PSS830114	PSS830115
YMC-Pack SIL	YMC	-	-	SL12S03-1546WT	SL12S05-1546WT	SL12S05-2546WT
Zorbax Rx-Sil	Agilent	827700-901	-	-	883975-901	880975-901

¹ 1.9 μ m; ² 2.0 mm ID; ³ 1.7 μ m

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Ordering Information

Bakerbond Q2100 UHPLC Columns

Columns Dimensions	Particle size	C18	C8	Phenyl-Hexyl	Sil
2.1 x 50 mm	1.8 µm	7395-52	7342-52	7351-52	7344-52
2.1 x 100 mm	1.8 µm	7395-12	7342-12	7351-12	7344-12
UHPLC guard cartridges for 2.1 mm ID columns (3/pk)		7395-2U	7342-2U	7351-2U	7344-2U
UHPLC guard holder		7638-00	7638-00	7638-00	7638-00

Bakerbond Q2100 HPLC Columns

Columns Dimensions	Particle size	C18	C8	Phenyl-Hexyl	Sil
2.1 x 50 mm	3 µm	7405-52	7354-52	7358-52	7373-52
2.1 x 75 mm	3 µm	7405-32	7354-32	7358-32	7373-32
2.1 x 150 mm	3 µm	7405-42	7354-42	7358-42	7373-42
4.6 x 50 mm	3 µm	7405-54	7354-54	7358-54	7373-54
4.6 x 75 mm	3 µm	7405-34	7354-34	7358-34	7373-34
4.6 x 150 mm	3 µm	7405-14	7354-14	7358-14	7373-14
2.1 x 150 mm	5 µm	7411-42	7378-42	7382-42	7375-42
2.1 x 250 mm	5 µm	7411-22	7378-22	7382-22	7375-22
4.6 x 150 mm	5 µm	7411-14	7378-14	7382-14	7375-14
4.6 x 250 mm	5 µm	7411-24	7378-24	7382-24	7375-24
HPLC guard cartridges for 2.1 mm ID columns (5/pk)		7411-2H	7378-2H	7382-2H	7375-2H
HPLC guard cartridges for 4.6 mm ID columns (5/pk)		7411-4H	7378-4H	7382-4H	7375-4H
HPLC guard holder		7644-00	7644-00	7644-00	7644-00

