

# iLOK™-SL Cartridges



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# iLOK™-SL Cartridges

NEW iLOK™-SL (Solid-Load) Openable Columns (Twist-Cap) for Solid Loading with 15% Free Space on the Top!

## Flexibility and Performance

iLOK™-SL Cartridges offer users convenience for manual assembly, allowing for flexible sample loading methods: solid loading and direct liquid injection. The unique, proprietary dry packing technique guarantees high resolution and reproducibility for everyday purifications.



## Versatile and Safe

iLOK™-SL Cartridges are available in wide range of cartridge sizes for any situation (3.5 g, 10 g, 20 g, 35 g, 70 g, 100 g, 185 g, 280 g), allowing purification from milligram to dozens of grams. They are packed with UltraPure silica (irregular silica or spherical), alumina, C18, C8, C4, DIOL, CN, NH<sub>2</sub>, SAX, SCX or ARG, better satisfying the requirements for different users. Reinforced cartridge body allows for higher pressure of up to 200 psi, fully compatible with any flash system on the market.

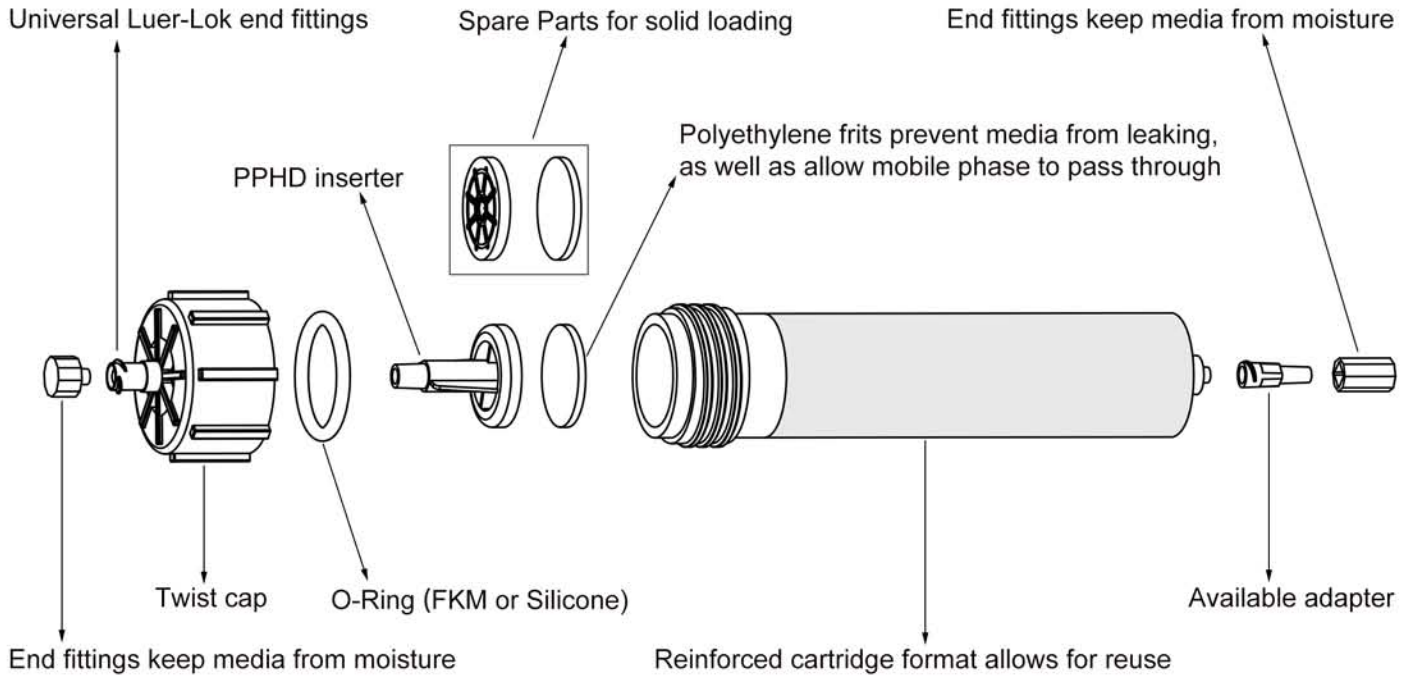
## Advantages

- Universal fittings
- Flexible sample loading options
- Improved pressure rated up to 200 psi
- Innovative design convenient for manual assembly
- Higher peak resolution than competitive cartridges

# iLOK™-SL Cartridges Structure Chart

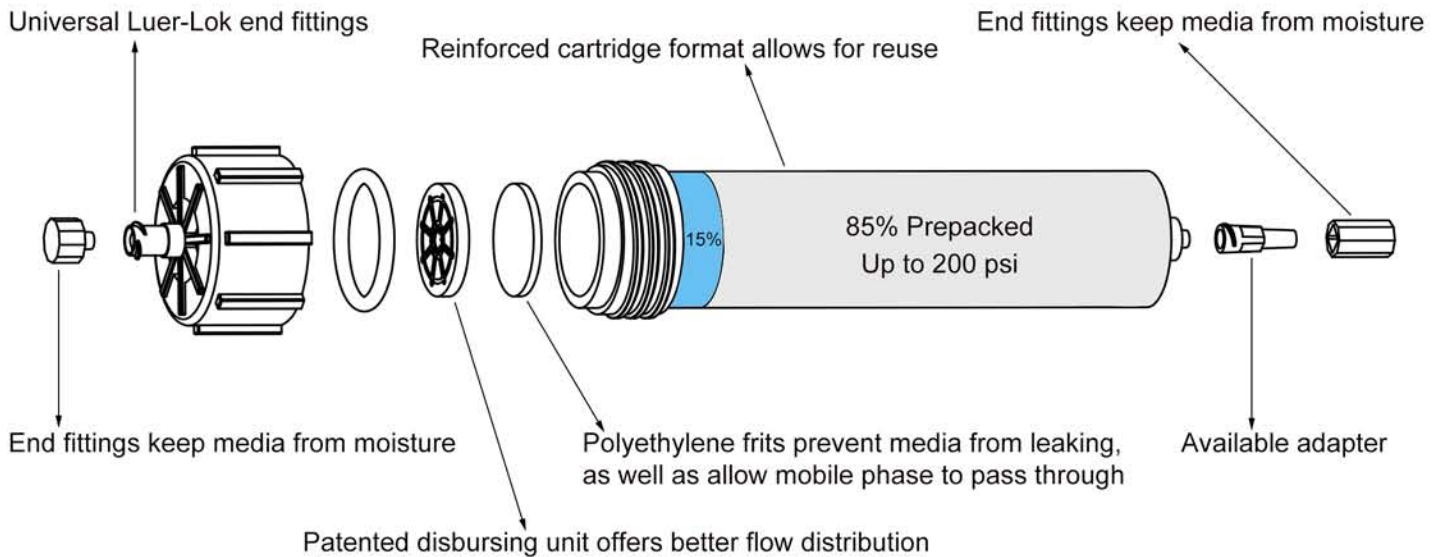
## iLOK™-SL with PPHD Inserter

Standard assembly & for liquid injection



## iLOK™-SL Cartridges for Solid Loading

15% Sample and 85% Prepacked Media



▲ Ensure cap is fully tightened before use.

# Parts and Accessories

## PPHD Inserter



Twist Cap



Fixed the position when 15% free space for solid prepacking media, which loading allows liquid injection via syringe



15% Free Space



## O-ring Options



O-Ring

Deformation occurs to a certain extent whether it is general material or FKM O-ring when it is soaked in the organic solvent for a long time. It can be restored to the original shape after a period of time (normally about 40 minutes).

We provide O-rings matching all the iLOK™ cartridges ranging from 3.5 g to 280 g. In addition to O-ring made of general materials (silicone rubber), we also provide O-ring made of FKM (fluorocarbon O-ring) which has more superior performance. Compared with silicone O-ring made of general materials, FKM O-ring is much more sturdy and shows great stability in organic solvents such as dichloromethane or n-hexane.



① Silicone O-Ring



② FKM O-Ring

## Top Frit

Polyethylene frits prevent media from leaking, as well as allow mobile phase to pass through.

## Disbursing Unit

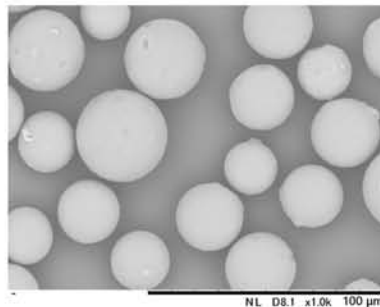
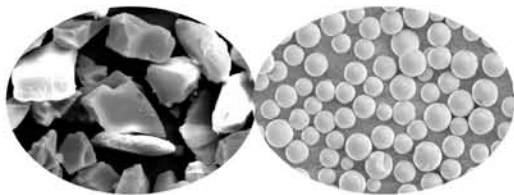
Patented disbursing unit offers excellent flow distribution.



# Prepacked Media Options

## ULTRAPURE SILICA GELS

- SPHERICAL Silica (Japan)
- IRREGULAR Silica (Germany, Switzerland, Japan, China, USA)



SEM picture of 20–45 μm spherical silica gel



Item No.	Media	Particle	Pre Packing
SL-5101	UltraPure irregular silica	40-63 μm, 60 Å	surface area 500 m <sup>2</sup> /g, pH 6.5-7.5, loading capacity 0.1-10%
SL-2102-SP(H)	High-capacity spherical silica	25 μm, 50 Å	surface area 700 m <sup>2</sup> /g, pH 5.0-8.0, loading capacity 0.1-30%
SL-2102-SP	High-efficiency spherical silica	20-45 μm, 70 Å	surface area 500 m <sup>2</sup> /g, pH 6.0-8.0, loading capacity 0.1-15%
SL-8601-N	High-quality natural alumina	50-75 μm, 55 Å	surface area 155 m <sup>2</sup> /g, pH 6.5-7.5, loading capacity 0.1-4%
SL-8601-A	High-quality acidic alumina	50-75 μm, 55 Å	surface area 155 m <sup>2</sup> /g, pH 3.8-4.8, loading capacity 0.1-4%
SL-8601-B	High-quality basic alumina	50-75 μm, 55 Å	surface area 155 m <sup>2</sup> /g, pH 9.0-10.0, loading capacity 0.1-4%
SL-5201-IR	UltraPure irregular C18	40-63 μm, 60 Å	carbon content 17%, end-capping, surface area 500 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5211-IR	UltraPure irregular C18	40-63 μm, 90 Å	carbon content 15%, end-capping, surface area 400 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5202-SP(H)	High-capacity spherical C18	20-30 μm, 50 Å	carbon content 17%, end-capping, surface area 700 m <sup>2</sup> /g, loading capacity 0.1-3%
SL-5211-SS	UltraPure hemispherical C18	50 μm, 90 Å	carbon content 17%, end-capping, surface area 400 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5231-SP	UltraPure spherical C18	40-60 μm, 120Å	carbon content 17%, end-capping, surface area 300 m <sup>2</sup> /g, loading capacity 0.1-1.5%
SL-5232-SP	High-efficiency spherical C18	30-50 μm, 120Å	carbon content 17%, end-capping, surface area 300 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5221-SP	UltraPure spherical C18	40-75 μm, 100Å	carbon content 17%, end-capping, surface area 300 m <sup>2</sup> /g, loading capacity 0.1-1.5%
SL-5222-SP	High-efficiency spherical C18	20-45 μm, 100Å	carbon content 17%, end-capping, surface area 320 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5223-SP	High-efficiency spherical C18	15 μm, 100Å	carbon content 17%, end-capping, surface area 320 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5322-SP	High-efficiency spherical CN	20-45 μm, 100 Å	carbon content 5.5%, end-capping, surface area 320 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5422-SP	High-efficiency spherical C4	20-45 μm, 100 Å	carbon content 5.8%, end-capping, surface area 320 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5822-SP	High-efficiency spherical C8	20-45 μm, 100 Å	carbon content 7%, end-capping, surface area 320 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5922-SP	High-efficiency spherical Diol	20-45 μm, 100 Å	carbon content 5%, end-capping, surface area 320 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5501-IR	UltraPure irregular NH <sub>2</sub>	40-63 μm, 60 Å	amino content 1.3 mmol/g, end-capping, surface area 500 m <sup>2</sup> /g, loading capacity 0.1-2%
SL-5502-SP(H)	High-capacity spherical NH <sub>2</sub>	20-30 μm, 50 Å	amino content 1.8 mmol/g, end-capping, surface area 700 m <sup>2</sup> /g, loading capacity 0.1-3%
SL-5001-IR	UltraPure irregular SAX	40-63 μm, 60 Å	carbon content 8%, surface area 500 m <sup>2</sup> /g, ion-exchange capacity ≤ 0.26 meq/g
SL-5701-IR	UltraPure irregular SCX	40-63 μm, 60 Å	carbon content 10%, surface area 500 m <sup>2</sup> /g, ion-exchange capacity ≤ 0.34 meq/g
SL-5622-SP	High-efficiency spherical ARG	20-45 μm, 100 Å	carbon content 8%, surface area 320 m <sup>2</sup> /g, loading capacity 0.1-2%

※ This chart contains a selection of available silica gels. For more information, please refer to iLOK™ media options.

## iLOK™ Media Options

### UltraPure irregular silica, 40–63 µm, 60 Å

(surface area 500 m<sup>2</sup>/g, pH 6.5–7.5, loading capacity 0.1–10%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5101-004	3.5 g	3.5 mg–0.35 g	20	15–40	115.1	12.8	200/13.8
SL-5101-012	10 g	10 mg–1.0 g	18	30–60	137.8	21.4	200/13.8
SL-5101-025	20 g	20 mg–2.0 g	12	30–60	188.2	21.6	200/13.8
SL-5101-040	35 g	35 mg–3.5 g	12	40–70	188.7	26.8	200/13.8
SL-5101-080	70 g	70 mg–7.0 g	10	50–100	263.5	31.2	200/13.8
SL-5101-120	100 g	100 mg–10 g	10	60–150	277.7	36.6	200/13.8
SL-5101-220	185 g	185 mg–18.5 g	6	80–220	218.5	60.6	150/10.3
SL-5101-330	280 g	280 mg–28 g	5	80–220	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-capacity spherical silica, 25 µm, 50 Å

(surface area 700 m<sup>2</sup>/g, pH 5.0–8.0, loading capacity 0.1–30%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-2102-004-SP(H)	3.5 g	3.5 mg–1.05 g	20	15–30	115.1	12.8	200/13.8
SL-2102-012-SP(H)	10 g	10 mg–3.0 g	18	25–50	137.8	21.4	200/13.8
SL-2102-025-SP(H)	20 g	20 mg–6.0 g	12	25–50	188.2	21.6	200/13.8
SL-2102-040-SP(H)	35 g	35 mg–10.5 g	12	30–60	188.7	26.8	200/13.8
SL-2102-080-SP(H)	70 g	70 mg–21 g	10	40–80	263.5	31.2	200/13.8
SL-2102-120-SP(H)	100 g	100 mg–30 g	10	45–90	277.7	36.6	200/13.8
SL-2102-220-SP(H)	185 g	185 mg–55.5 g	6	60–120	218.5	60.6	150/10.3
SL-2102-330-SP(H)	280 g	280 mg–84 g	5	60–120	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-efficiency spherical silica, 20–45 µm, 70 Å

(surface area 500 m<sup>2</sup>/g, pH 6.0–8.0, loading capacity 0.1–15%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-2102-004-SP	3.5 g	3.5 mg–0.53 g	20	15–30	115.1	12.8	200/13.8
SL-2102-012-SP	10 g	10 mg–1.5 g	18	25–50	137.8	21.4	200/13.8
SL-2102-025-SP	20 g	20 mg–3.0 g	12	25–50	188.2	21.6	200/13.8
SL-2102-040-SP	35 g	35 mg–5.3 g	12	30–60	188.7	26.8	200/13.8
SL-2102-080-SP	70 g	70 mg–10.5 g	10	40–80	263.5	31.2	200/13.8
SL-2102-120-SP	100 g	100 mg–15 g	10	45–90	277.7	36.6	200/13.8
SL-2102-220-SP	185 g	185 mg–27.8 g	6	60–120	218.5	60.6	150/10.3
SL-2102-330-SP	280 g	280 mg–42 g	5	60–120	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

## iLOK™ Media Options

### High-quality neutral alumina, 50–75 µm, 55 Å

(surface area 155 m<sup>2</sup>/g, pH 6.5–7.5, loading capacity 0.1–4%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-8601-004-N	7 g	7 mg–0.28 g	20	10–30	115.1	12.8	200/13.8
SL-8601-012-N	20 g	20 mg–0.8 g	18	15–45	137.8	21.4	200/13.8
SL-8601-025-N	40 g	40 mg–1.6 g	12	15–45	188.2	21.6	200/13.8
SL-8601-040-N	70 g	70 mg–2.8 g	12	20–50	188.7	26.8	200/13.8
SL-8601-080-N	140 g	140 mg–5.6 g	10	30–70	263.5	31.2	200/13.8
SL-8601-120-N	200 g	0.2 g–8.0 g	10	40–80	277.7	36.6	200/13.8
SL-8601-220-N	370 g	0.37 g–14.8 g	6	50–120	218.5	60.6	150/10.3
SL-8601-330-N	560 g	0.56 g–22.4 g	5	50–120	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-quality acidic alumina, 50–75 µm, 55 Å

(surface area 155 m<sup>2</sup>/g, pH 3.8–4.8, loading capacity 0.1–4%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-8601-004-A	7 g	7 mg–0.28 g	20	10–30	115.1	12.8	200/13.8
SL-8601-012-A	20 g	20 mg–0.8 g	18	15–45	137.8	21.4	200/13.8
SL-8601-025-A	40 g	40 mg–1.6 g	12	15–45	188.2	21.6	200/13.8
SL-8601-040-A	70 g	70 mg–2.8 g	12	20–50	188.7	26.8	200/13.8
SL-8601-080-A	140 g	140 mg–5.6 g	10	30–70	263.5	31.2	200/13.8
SL-8601-120-A	200 g	0.2 g–8.0 g	10	40–80	277.7	36.6	200/13.8
SL-8601-220-A	370 g	0.37 g–14.8 g	6	50–120	218.5	60.6	150/10.3
SL-8601-330-A	560 g	0.56 g–22.4 g	5	50–120	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-quality basic alumina, 50–75 µm, 55 Å

(surface area 155 m<sup>2</sup>/g, pH 9.0–10.0, loading capacity 0.1–4%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-8601-004-B	7 g	7 mg–0.28 g	20	10–30	115.1	12.8	200/13.8
SL-8601-012-B	20 g	20 mg–0.8 g	18	15–45	137.8	21.4	200/13.8
SL-8601-025-B	40 g	40 mg–1.6 g	12	15–45	188.2	21.6	200/13.8
SL-8601-040-B	70 g	70 mg–2.8 g	12	20–50	188.7	26.8	200/13.8
SL-8601-080-B	140 g	140 mg–5.6 g	10	30–70	263.5	31.2	200/13.8
SL-8601-120-B	200 g	0.2 g–8.0 g	10	40–80	277.7	36.6	200/13.8
SL-8601-220-B	370 g	0.37 g–14.8 g	6	50–120	218.5	60.6	150/10.3
SL-8601-330-B	560 g	0.56 g–22.4 g	5	50–120	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.



## iLOK™ Media Options

### UltraPure irregular C18, 40–63 µm, 60 Å

(carbon content 17%, end-capping, surface area 500 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5201-004-IR	5 g	5 mg–100 mg	2	10–20	115.1	12.8	200/13.8
SL-5201-012-IR	20 g	20 mg–0.40 g	1	15–30	137.8	21.4	200/13.8
SL-5201-025-IR	32 g	32 mg–0.64 g	1	15–30	188.2	21.6	200/13.8
SL-5201-040-IR	47 g	47 mg–0.94 g	1	20–40	188.7	26.8	200/13.8
SL-5201-080-IR	103 g	103 mg–2.1 g	1	30–60	263.5	31.2	200/13.8
SL-5201-120-IR	153 g	153 mg–3.1 g	1	40–80	277.7	36.6	200/13.8
SL-5201-220-IR	290 g	290 mg–5.8 g	1	50–100	218.5	60.6	150/10.3
SL-5201-330-IR	405 g	405 mg–8.1 g	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### UltraPure irregular C18, 40–63 µm, 90 Å

(carbon content 15%, end-capping, surface area 400 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5211-004-IR	4.5 g	4.5 mg–90 mg	2	10–20	115.1	12.8	200/13.8
SL-5211-012-IR	17 g	17 mg–0.34 g	1	15–30	137.8	21.4	200/13.8
SL-5211-025-IR	28 g	28 mg–0.56 g	1	15–30	188.2	21.6	200/13.8
SL-5211-040-IR	40 g	40 mg–0.80 g	1	20–40	188.7	26.8	200/13.8
SL-5211-080-IR	90 g	90 mg–1.8 g	1	30–60	263.5	31.2	200/13.8
SL-5211-120-IR	132 g	132 mg–2.64 g	1	40–80	277.7	36.6	200/13.8
SL-5211-220-IR	250 g	250 mg–5.0 g	1	50–100	218.5	60.6	150/10.3
SL-5211-330-IR	360 g	360 mg–7.2 g	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-capacity spherical C18, 20–30 µm, 50 Å

(carbon content 17%, end-capping, surface area 700 m<sup>2</sup>/g, loading capacity 0.1–3%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5202-004-SP(H)	5 g	5 mg–150 mg	2	5–15	115.1	12.8	200/13.8
SL-5202-012-SP(H)	20 g	20 mg–0.60 g	1	10–25	137.8	21.4	200/13.8
SL-5202-025-SP(H)	32 g	32 mg–0.96 g	1	10–25	188.2	21.6	200/13.8
SL-5202-040-SP(H)	47 g	47 mg–1.41 g	1	15–30	188.7	26.8	200/13.8
SL-5202-080-SP(H)	103 g	103 mg–3.09 g	1	20–50	263.5	31.2	200/13.8
SL-5202-120-SP(H)	153 g	153 mg–4.59 g	1	30–60	277.7	36.6	200/13.8
SL-5202-220-SP(H)	290 g	290 mg–8.7 g	1	40–80	218.5	60.6	150/10.3
SL-5202-330-SP(H)	405 g	405 mg–12.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

## iLOK™ Media Options

### UltraPure hemispherical C18, 50 µm, 90 Å

(carbon content 17%, end-capping, surface area 400 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5211-004-SS	4.3 g	4.3 mg–86 mg	2	10–20	115.1	12.8	200/13.8
SL-5211-012-SS	16 g	16 mg–0.32 g	1	15–30	137.8	21.4	200/13.8
SL-5211-025-SS	27 g	27 mg–0.54 g	1	15–30	188.2	21.6	200/13.8
SL-5211-040-SS	40 g	40 mg–0.8 g	1	20–40	188.7	26.8	200/13.8
SL-5211-080-SS	85 g	85 mg–1.7 g	1	30–60	263.5	31.2	200/13.8
SL-5211-120-SS	128 g	128 mg–2.56 g	1	40–80	277.7	36.6	200/13.8
SL-5211-220-SS	240 g	240 mg–4.8 g	1	50–100	218.5	60.6	150/10.3
SL-5211-330-SS	335 g	335 mg–6.7 g	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### UltraPure spherical C18, 40–60 µm, 120 Å

(carbon content 17%, end-capping, surface area 300 m<sup>2</sup>/g, loading capacity 0.1–1.5%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5231-004-SP	3.8 g	3.8 mg–57 mg	2	10–20	115.1	12.8	200/13.8
SL-5231-012-SP	15 g	15 mg–0.23 g	1	15–30	137.8	21.4	200/13.8
SL-5231-025-SP	23 g	23 mg–0.35 g	1	15–30	188.2	21.6	200/13.8
SL-5231-040-SP	35 g	35 mg–0.53 g	1	20–40	188.7	26.8	200/13.8
SL-5231-080-SP	76 g	76 mg–1.14 g	1	30–60	263.5	31.2	200/13.8
SL-5231-120-SP	110 g	110 mg–1.65 g	1	40–80	277.7	36.6	200/13.8
SL-5231-220-SP	210 g	210 mg–3.15 g	1	50–100	218.5	60.6	150/10.3
SL-5231-330-SP	300 g	300 mg–4.5 g	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-efficiency spherical C18, 30–50 µm, 120 Å

(carbon content 17%, end-capping, surface area 300 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5232-004-SP	3.7 g	3.7 mg–74 mg	2	5–15	115.1	12.8	200/13.8
SL-5232-012-SP	13 g	13 mg–0.26 g	1	10–25	137.8	21.4	200/13.8
SL-5232-025-SP	22 g	22 mg–0.44 g	1	10–25	188.2	21.6	200/13.8
SL-5232-040-SP	33 g	33 mg–0.66 g	1	15–30	188.7	26.8	200/13.8
SL-5232-080-SP	72 g	72 mg–1.44 g	1	20–50	263.5	31.2	200/13.8
SL-5232-120-SP	106 g	106 mg–2.12 g	1	30–60	277.7	36.6	200/13.8
SL-5232-220-SP	205 g	205 mg–4.1 g	1	40–80	218.5	60.6	150/10.3
SL-5232-330-SP	285 g	285 mg–5.7 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

## iLOK™ Media Options

### UltraPure spherical C18, 40-75 µm, 100 Å

(carbon content 17%, end-capping, surface area 300 m<sup>2</sup>/g, loading capacity 0.1–1.5%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5221-004-SP	3.9 g	3.9 mg–59 mg	2	10–20	115.1	12.8	200/13.8
SL-5221-012-SP	15 g	15 mg–0.23 g	1	15–30	137.8	21.4	200/13.8
SL-5221-025-SP	25 g	25 mg–0.38 g	1	15–30	188.2	21.6	200/13.8
SL-5221-040-SP	36 g	36 mg–0.54 g	1	20–40	188.7	26.8	200/13.8
SL-5221-080-SP	80 g	80 mg–1.2 g	1	30–60	263.5	31.2	200/13.8
SL-5221-120-SP	120 g	120 mg–1.8 g	1	40–80	277.7	36.6	200/13.8
SL-5221-220-SP	225 g	225 mg–3.38 g	1	50–100	218.5	60.6	150/10.3
SL-5221-330-SP	330 g	330 mg–4.95 g	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-efficiency spherical C18, 20–45 µm, 100 Å

(carbon content 17%, end-capping, surface area 320 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5222-004-SP	4.6 g	4.6 mg–92 mg	2	5–15	115.1	12.8	200/13.8
SL-5222-012-SP	17 g	17 mg–0.34 g	1	10–25	137.8	21.4	200/13.8
SL-5222-025-SP	28 g	28 mg–0.56 g	1	10–25	188.2	21.6	200/13.8
SL-5222-040-SP	40 g	40 mg–0.8 g	1	15–30	188.7	26.8	200/13.8
SL-5222-080-SP	90 g	90 mg–1.8 g	1	20–50	263.5	31.2	200/13.8
SL-5222-120-SP	132 g	132 mg–2.64 g	1	30–60	277.7	36.6	200/13.8
SL-5222-220-SP	255 g	255 mg–5.1 g	1	40–80	218.5	60.6	150/10.3
SL-5222-330-SP	360 g	360 mg–7.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-efficiency spherical C18, 15 µm, 100 Å

(carbon content 17%, end-capping, surface area 320 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5223-004-SP	4.6 g	4.6 mg–92 mg	2	5–15	115.1	12.8	200/13.8
SL-5223-012-SP	17 g	17 mg–0.34 g	1	10–25	137.8	21.4	200/13.8
SL-5223-025-SP	28 g	28 mg–0.56 g	1	10–25	188.2	21.6	200/13.8
SL-5223-040-SP	40 g	40 mg–0.8 g	1	15–30	188.7	26.8	200/13.8
SL-5223-080-SP	90 g	90 mg–1.8 g	1	20–50	263.5	31.2	200/13.8
SL-5223-120-SP	132 g	132 mg–2.64 g	1	30–60	277.7	36.6	200/13.8
SL-5223-220-SP	245 g	245 mg–4.9 g	1	40–80	218.5	60.6	150/10.3
SL-5223-330-SP	350 g	350 mg–7.0 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

## iLOK™ Media Options

### High-efficiency spherical CN, 20–45 µm, 100 Å

(carbon content 5.5%, end-capping, surface area 320 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5322-004-SP	4.6 g	4.6 mg–92 mg	2	5–15	115.1	12.8	200/13.8
SL-5322-012-SP	17 g	17 mg–0.34 g	1	10–25	137.8	21.4	200/13.8
SL-5322-025-SP	28 g	28 mg–0.56 g	1	10–25	188.2	21.6	200/13.8
SL-5322-040-SP	40 g	40 mg–0.8 g	1	15–30	188.7	26.8	200/13.8
SL-5322-080-SP	90 g	90 mg–1.8 g	1	20–50	263.5	31.2	200/13.8
SL-5322-120-SP	132 g	132 mg–2.64 g	1	30–60	277.7	36.6	200/13.8
SL-5322-220-SP	255 g	255 mg–5.1 g	1	40–80	218.5	60.6	150/10.3
SL-5322-330-SP	360 g	360 mg–7.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-efficiency spherical C4, 20–45 µm, 100 Å

(carbon content 5.8%, end-capping, surface area 320 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5422-004-SP	4.6 g	4.6 mg–92 mg	2	5–15	115.1	12.8	200/13.8
SL-5422-012-SP	17 g	17 mg–0.34 g	1	10–25	137.8	21.4	200/13.8
SL-5422-025-SP	28 g	28 mg–0.56 g	1	10–25	188.2	21.6	200/13.8
SL-5422-040-SP	40 g	40 mg–0.8 g	1	15–30	188.7	26.8	200/13.8
SL-5422-080-SP	90 g	90 mg–1.8 g	1	20–50	263.5	31.2	200/13.8
SL-5422-120-SP	132 g	132 mg–2.64 g	1	30–60	277.7	36.6	200/13.8
SL-5422-220-SP	255 g	255 mg–5.1 g	1	40–80	218.5	60.6	150/10.3
SL-5422-330-SP	360 g	360 mg–7.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-efficiency spherical C8, 20–45 µm, 100 Å

(carbon content 7%, end-capping, surface area 320 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5822-004-SP	4.6 g	4.6 mg–92 mg	2	5–15	115.1	12.8	200/13.8
SL-5822-012-SP	17 g	17 mg–0.34 g	1	10–25	137.8	21.4	200/13.8
SL-5822-025-SP	28 g	28 mg–0.56 g	1	10–25	188.2	21.6	200/13.8
SL-5822-040-SP	40 g	40 mg–0.8 g	1	15–30	188.7	26.8	200/13.8
SL-5822-080-SP	90 g	90 mg–1.8 g	1	20–50	263.5	31.2	200/13.8
SL-5822-120-SP	132 g	132 mg–2.64 g	1	30–60	277.7	36.6	200/13.8
SL-5822-220-SP	255 g	255 mg–5.1 g	1	40–80	218.5	60.6	150/10.3
SL-5822-330-SP	360 g	360 mg–7.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

## iLOK™ Media Options

### High-efficiency spherical Diol, 20–45 $\mu\text{m}$ , 100 Å

(carbon content 5%, end-capping, surface area 320  $\text{m}^2/\text{g}$ , loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5922-004-SP	4.6 g	4.6 mg–92 mg	2	5–15	115.1	12.8	200/13.8
SL-5922-012-SP	17 g	17 mg–0.34 g	1	10–25	137.8	21.4	200/13.8
SL-5922-025-SP	28 g	28 mg–0.56 g	1	10–25	188.2	21.6	200/13.8
SL-5922-040-SP	40 g	40 mg–0.8 g	1	15–30	188.7	26.8	200/13.8
SL-5922-080-SP	90 g	90 mg–1.8 g	1	20–50	263.5	31.2	200/13.8
SL-5922-120-SP	132 g	132 mg–2.64 g	1	30–60	277.7	36.6	200/13.8
SL-5922-220-SP	255 g	255 mg–5.1 g	1	40–80	218.5	60.6	150/10.3
SL-5922-330-SP	360 g	360 mg–7.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### UltraPure irregular $\text{NH}_2$ , 40–63 $\mu\text{m}$ , 60 Å

(amino content 1.3 mmol/g, end-capping, surface area 500  $\text{m}^2/\text{g}$ , loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5501-004-IR	5 g	5 mg–100 mg	2	10–20	115.1	12.8	200/13.8
SL-5501-012-IR	20 g	20 mg–0.40 g	1	15–30	137.8	21.4	200/13.8
SL-5501-025-IR	32 g	32 mg–0.64 g	1	15–30	188.2	21.6	200/13.8
SL-5501-040-IR	47 g	47 mg–0.94 g	1	20–40	188.7	26.8	200/13.8
SL-5501-080-IR	103 g	103 mg–2.1 g	1	30–60	263.5	31.2	200/13.8
SL-5501-120-IR	153 g	153 mg–3.1 g	1	40–80	277.7	36.6	200/13.8
SL-5501-220-IR	290 g	290 mg–5.8 g	1	50–100	218.5	60.6	150/10.3
SL-5501-330-IR	405 g	405 mg–8.1 g	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-capacity spherical $\text{NH}_2$ , 20–30 $\mu\text{m}$ , 50 Å

(amino content 1.8 mmol/g, end-capping, surface area 700  $\text{m}^2/\text{g}$ , loading capacity 0.1–3%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5502-004-SP(H)	5 g	5 mg–150 mg	2	5–15	115.1	12.8	200/13.8
SL-5502-012- SP(H)	20 g	20 mg–0.60 g	1	10–25	137.8	21.4	200/13.8
SL-5502-025- SP(H)	32 g	32 mg–0.96 g	1	10–25	188.2	21.6	200/13.8
SL-5502-040- SP(H)	47 g	47 mg–1.41 g	1	15–30	188.7	26.8	200/13.8
SL-5502-080- SP(H)	103 g	103 mg–3.09 g	1	20–50	263.5	31.2	200/13.8
SL-5502-120- SP(H)	153 g	153 mg–4.59 g	1	30–60	277.7	36.6	200/13.8
SL-5502-220- SP(H)	290 g	290 mg–8.7 g	1	40–80	218.5	60.6	150/10.3
SL-5502-330- SP(H)	405 g	405 mg–12.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

## iLOK™ Media Options

### UltraPure irregular SAX, 40-63 µm, 60 Å

(carbon content 8%, surface area 500 m<sup>2</sup>/g, ion-exchange capacity ≤ 0.26 meq/g)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5001-004-IR	5 g	≤ 1.30 meq	2	10–20	115.1	12.8	200/13.8
SL-5001-012-IR	20 g	≤ 5.20 meq	1	15–30	137.8	21.4	200/13.8
SL-5001-025-IR	32 g	≤ 8.32 meq	1	15–30	188.2	21.6	200/13.8
SL-5001-040-IR	47 g	≤ 12.22 meq	1	20–40	188.7	26.8	200/13.8
SL-5001-080-IR	103 g	≤ 26.78 meq	1	30–60	263.5	31.2	200/13.8
SL-5001-120-IR	153 g	≤ 39.78 meq	1	40–80	277.7	36.6	200/13.8
SL-5001-220-IR	290 g	≤ 75.40 meq	1	50–100	218.5	60.6	150/10.3
SL-5001-330-IR	405 g	≤ 105.30 meq	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### UltraPure irregular SCX, 40-63 µm, 60 Å

(amino content 10%, surface area 500 m<sup>2</sup>/g, ion-exchange capacity ≤ 0.34 meq/g)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5701-004-IR	5 g	≤ 1.70 meq	2	10–20	115.1	12.8	200/13.8
SL-5701-012-IR	20 g	≤ 6.80 meq	1	15–30	137.8	21.4	200/13.8
SL-5701-025-IR	32 g	≤ 10.88 meq	1	15–30	188.2	21.6	200/13.8
SL-5701-040-IR	47 g	≤ 15.98 meq	1	20–40	188.7	26.8	200/13.8
SL-5701-080-IR	103 g	≤ 35.02 meq	1	30–60	263.5	31.2	200/13.8
SL-5701-120-IR	153 g	≤ 52.02 meq	1	40–80	277.7	36.6	200/13.8
SL-5701-220-IR	290 g	≤ 98.60 meq	1	50–100	218.5	60.6	150/10.3
SL-5701-330-IR	405 g	≤ 137.70 meq	1	50–100	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

### High-efficiency spherical ARG, 20–45 µm, 100 Å

(carbon content 8%, surface area 320 m<sup>2</sup>/g, loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SL-5622-004-SP	4.6 g	4.6 mg–92 mg	2	5–15	115.1	12.8	200/13.8
SL-5622-012-SP	17 g	17 mg–0.34 g	1	10–25	137.8	21.4	200/13.8
SL-5622-025-SP	28 g	28 mg–0.56 g	1	10–25	188.2	21.6	200/13.8
SL-5622-040-SP	40 g	40 mg–0.8 g	1	15–30	188.7	26.8	200/13.8
SL-5622-080-SP	90 g	90 mg–1.8 g	1	20–50	263.5	31.2	200/13.8
SL-5622-120-SP	132 g	132 mg–2.64 g	1	30–60	277.7	36.6	200/13.8
SL-5622-220-SP	255 g	255 mg–5.1 g	1	40–80	218.5	60.6	150/10.3
SL-5622-330-SP	360 g	360 mg–7.2 g	1	40–80	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Yamazen, etc.

# ◆ SepaFlash® UltraPure Media Chart

Irregular & Spherical & Bonded Phases



## UltraPure Silica

Media	Particle	Container Size	Item Number
Silica	40–63 µm, 60 Å Irregular	500 g	ST5101-IR-500g
		1 kg	ST5101-IR-1kg
		25 kg	ST5101-IR-25kg
Silica	25–40 µm, 60 Å Irregular	500 g	ST5102-IR-500g
		1 kg	ST5102-IR-1kg
		25 kg	ST5102-IR-25kg
Silica	40–75 µm, 70 Å Spherical	500 g	ST2101-SP-500g
		1 kg	ST2101-SP-1kg
		20 kg	ST2101-SP-20kg

Media	Particle	Container Size	Item Number
Silica	40–75 µm, 100 Å Spherical	500 g	ST2121-SP-500g
		1 kg	ST2121-SP-1kg
		20 kg	ST2121-SP-20 kg
Silica	20–45 µm, 70 Å Spherical	500 g	ST2102-SP-500g
		1 kg	ST2102-SP-1kg
		20 kg	ST2102-SP-20 kg
Silica	20–45 µm, 100 Å Spherical	500 g	ST2122-SP-500g
		1 kg	ST2122-SP-1kg
		20 kg	ST2122-SP-20kg

## UltraPure Bonded Phases

Media	Particle	Container Size	Item Number
C18	40–63 µm, 60 Å Irregular	500 g	ST5201-IR-500g
		1 kg	ST5201-IR-1kg
		25 kg	ST5201-IR-25kg
C18	40–63 µm, 90 Å Irregular	500 g	ST5211-IR-500g
		1 kg	ST5211-IR-1kg
		25 kg	ST5211-IR-25kg
C18	50 µm, 90 Å Hemispherical	500 g	ST5211-SS-500g
		1 kg	ST5211-SS-1kg
		20 kg	ST5211-SS-20kg
C18	40–60 µm, 120 Å Spherical	500 g	ST5231-SP-500g
		1 kg	ST5231-SP-1kg
		20 kg	ST5231-SP-20kg
Cyano	20–45 µm, 100 Å Spherical	500 g	ST5322-SP-500g
		1 kg	ST5322-SP-1kg
		20 kg	ST5322-SP-20kg
C4	20–45 µm, 100 Å Spherical	500 g	ST5422-SP-500g
		1 kg	ST5422-SP-1kg
		20 kg	ST5422-SP-20kg
C8	20–45 µm, 100 Å Spherical	500 g	ST5822-SP-500g
		1 kg	ST5822-SP-1kg
		20 kg	ST5822-SP-20kg
Diol	20–45 µm, 100 Å Spherical	500 g	ST5922-SP-500g
		1 kg	ST5922-SP-1kg
		20 kg	ST5922-SP-20kg

Media	Particle	Container Size	Item Number
C18	30–50 µm, 120 Å Spherical	500 g	ST5232-SP-500g
		1 kg	ST5232-SP-1kg
		20 kg	ST5232-SP-20kg
C18	40–75 µm, 100 Å Spherical	500 g	ST5221-SP-500g
		1 kg	ST5221-SP-1kg
		20 kg	ST5221-SP-20kg
C18	20–45 µm, 100 Å Spherical	500 g	ST5222-SP-500g
		1 kg	ST5222-SP-1kg
		20 kg	ST5222-SP-20kg
C18	15 µm, 100 Å Spherical	500 g	ST5223-SP-500g
		1 kg	ST5223-SP-1kg
		20 kg	ST5223-SP-20kg
Amine	40–63 µm, 60 Å Irregular	500 g	ST5501-IR-500g
		1 kg	ST5501-IR-1kg
		25 kg	ST5501-IR-25kg
SAX	40–63 µm, 60 Å Irregular	500 g	ST5001-IR-500g
		1 kg	ST5001-IR-1kg
		25 kg	ST5001-IR-25kg
SCX	40–63 µm, 60 Å Irregular	500 g	ST5701-IR-500g
		1 kg	ST5701-IR-1kg
		25 kg	ST5701-IR-25kg
ARG	20–45 µm, 100 Å Spherical	500 g	ST5622-SP-500g
		1 kg	ST5622-SP-1kg
		20 kg	ST5622-SP-20kg

※ Contact us for more Bonded Phase options.

## High-quality Media

Media	Particle	Container Size	Item Number	Media	Particle	Container Size	Item Number
Silica	40–63 µm, 60 Å Irregular	500 g	ST8101-IR-500g	Basic alumina	50–75 µm Irregular	500 g	ST8601-B-500g
		1 kg	ST8101-IR-1kg			1 kg	ST8601-B-1kg
		25 kg	ST8101-IR-25kg			25 kg	ST8601-B-25kg
Neutral alumina	50–75 µm Irregular	500 g	ST8601-N-500g	C18	40–63 µm, 60 Å Irregular	500 g	ST8201-IR-500g
		1 kg	ST8601-N-1kg			1 kg	ST8201-IR-1kg
		25 kg	ST8601-N-25kg			25 kg	ST8201-IR-25kg
Acidic alumina	50–75 µm Irregular	500 g	ST8601-A-500g	C18	20–45 µm, 100 Å Spherical	500 g	ST8222-SP-500g
		1 kg	ST8601-A-1kg			1 kg	ST8222-SP-1kg
		25 kg	ST8601-A-25kg			25 kg	ST8222-SP-25kg

## SepaFlash® TLC Plates

Item Number	Specifications	Units/ Box
TL-8103-2101	High performance silica TLC plate, glass backed, F254, 25*80 mm	320
TL-8103-2106	High performance silica TLC plate, glass backed, F254, 200*200 mm	20
TL-8103-2116	High performance silica TLC plate, aluminum sheet, F254, 200*200 mm	20
TL-8601-2106-N	Neutral alumina TLC plate, glass backed, F254, 200*200 mm	20
TL-8601-2101-N	Neutral alumina TLC plate, glass backed, F254, 25*80 mm	320
TL-8601-2106-B	Basic alumina TLC plate, glass backed, F254, 200*200 mm	20
TL-8601-2101-B	Basic alumina TLC plate, glass backed, F254, 25*80 mm	320



## iLOK™ Empty Solid Load Cartridges

(iLOK™ empty solid load cartridge with screw cap, frits, disbursing unit, O-ring and end tips)

Item Number	Description	Units/Box	Volumn (ml)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SD-0000-004	Empty solid load cartridge, 4 g	optional	8	115.1	12.8	200/13.8
SD-0000-012	Empty solid load cartridge, 12 g	optional	27	137.8	21.4	200/13.8
SD-0000-025	Empty solid load cartridge, 25 g	optional	46	188.2	21.6	200/13.8
SD-0000-040	Empty solid load cartridge, 40 g	optional	70	188.7	26.8	200/13.8
SD-0000-060	Empty solid load cartridge, 60 g	optional	104	173.3	36.6	200/13.8
SD-0000-080	Empty solid load cartridge, 80 g	optional	147	263.5	31.2	200/13.8
SD-0000-100	Empty solid load cartridge, 100 g	optional	176	146.6	60.4	150/10.3
SD-0000-120	Empty solid load cartridge, 120 g	optional	215	277.7	36.6	200/13.8
SD-0000-220	Empty solid load cartridge, 220 g	optional	377	218.5	60.6	150/10.3
SD-0000-330	Empty solid load cartridge, 330 g	optional	539	271.6	60.6	150/10.3

⚠ Ensure cap is fully tightened before use.



# User Guideline

## Configurations for Solid Loading



**Configuration 1. iLOK™-SL Cartridges**

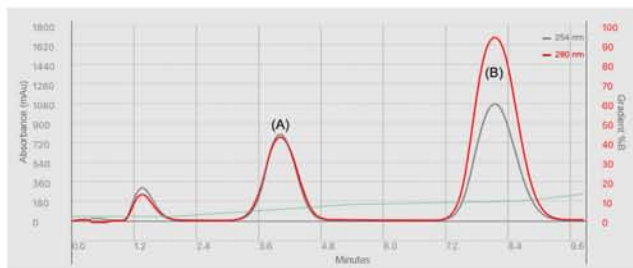
85% pre-packed with silica gel  
15% free space for solid loading



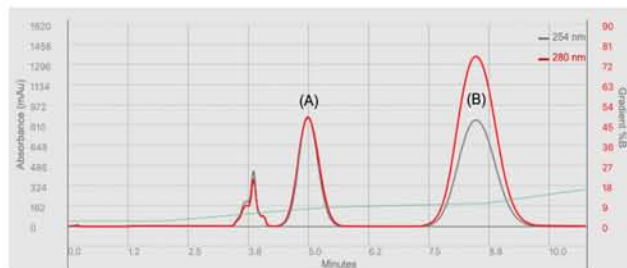
**Configuration 2. Empty iLOK™ Cartridge**

100% pre-packed with silica gel. Put the pre-adsorbed sample media into an empty cartridge

- Solid loading is a useful technique to load sample to be purified onto a column, particularly in the case of low-solubility samples. On this occasion, iLOK™-SL cartridges is the best suitable choice.
- The sample is dissolved in a suitable solvent and adsorbed onto diatomaceous earth. After removal of the residual solvent, the adsorbent is put on top of partly filled iLOK™-SL cartridge or into an empty cartridge.
- Lower operating pressures can be used to elute with greater flow rates to increase separation flux.

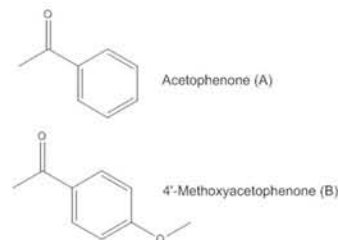


**Figure 1. Internal Loading Test with iLOK™-SL Cartridge**



**Figure 2. External Loading Test with iLOK™-SL Cartridge**

Instrument	Flash Chromatography System	
Part number	SL-5101-012	
Cartridge	SepaFlash® iLOK™-SL Cartridge	
Wavelength	254 nm	280 nm
Mobile Phase	A: Normal Hexane B: Ethyl Acetate	
Wavelength	30 mL/min	
Eluting gradient	% Solvent B	Time/(min)
	3	0.0
	3	2.0
	8	5.5
	10	8.8
	14	10.0



## Conclusion

Compared with conventional column, iLOK™-SL cartridge can shorten the run time, reduce solvent consumption, and significantly reduce separation costs with the same elution conditions.

# ◆ User Guideline

## Sample Loading Guideline

### ■ Pre-equilibrating cartridge

- Remove end fittings.
- Eliminate the thermal effect from solvent adsorption on a dry cartridge.
- Ensure pre-equilibrium between the solvent and the silica.
- Entrapped air, the thermal effect and lack of equilibrium can cause separation, purity and recovery problems, especially with early eluting compounds.
- In general the recommended pre-equilibration volume is 3-5 column volumes prior to sample loading. If using gradient elution, pre-equilibrate with the starting solvent mixture.

### ■ Loading samples

- Liquid loading: each iLOK™ cartridges is supplied with a built-in inserter, which allows liquid injection via a syringe.
- Solid loading: if internal solid loading is to be used, this inserter must be removed. For optional purification with iLOK™-SL cartridges follow steps as shown below.



Screw cap from the cartridge.



Press the center post and remove the PPHD inserter from cartridge.



Add media into the headspace and tap lightly. Don't overfill.



Add a top frit on the added media and align the frit horizontally.



Use the frit insertion rod to press the fruit into space.



Add a dispersing unit on the top frit.



Put back the screw cap onto the cartridge.



The tightening process will set the frit into place.

iLOK™-SL cartridges offer users convenience for manual assembly, allowing for flexible sample loading methods: solid loading and direct liquid injection.

▲ Ensure cap is fully tightened before use.

# Comparison Test Between Competitor and Santai

## Introduction

To evaluate the effect of direct sample loading on iLOK™-SL cartridges, as well as to compare the separation efficiency of Santai's iLOK™-SL cartridges with competitor's cartridges, a flash purification experiment with a sample mixture was performed in a preparative flash chromatography system. The chemical structure of two sample compounds was shown in Figure 1.

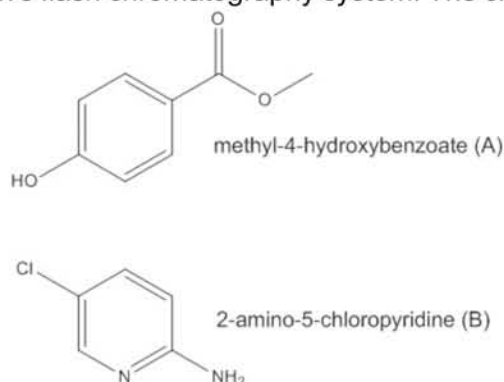


Figure 1: The chemical structure of two sample compounds.

## Experimental

Table 1: Typical method parameters

Instrumentation	A preparative flash chromatography system			
Cartridges	1) Competitor's Cartridge 10 g, Irregular silica, 50 µm 2) Santai iLOK™-SL Cartridge prepacked 85%, 10 g, Irregular silica, 40-63 µm, 60 Å Part number: SL-5101-012			
Wavelength	254 nm (detection), 280 nm (monitoring)			
Sample	240 mg mixture of methyl-4-hydroxybenzoate (120 mg) and 2-amino-5-chloropyridine (120 mg)			
Mobile Phase	Solvent A: Hexane		Solvent B: Ethyl acetate	
Flow Rate	30 mL/min			
Equilibration Volume	100 mL			
Gradient	Settings for Competitor's cartridge		Settings for Santai cartridge	
	Solvent B (%)	Time (min)	Solvent B (%)	Time (min)
	0	0	0	0
	0	1	0	1
	70	10	70	10
100	13	100	12	

## Comparison Test Between Competitor and Santai

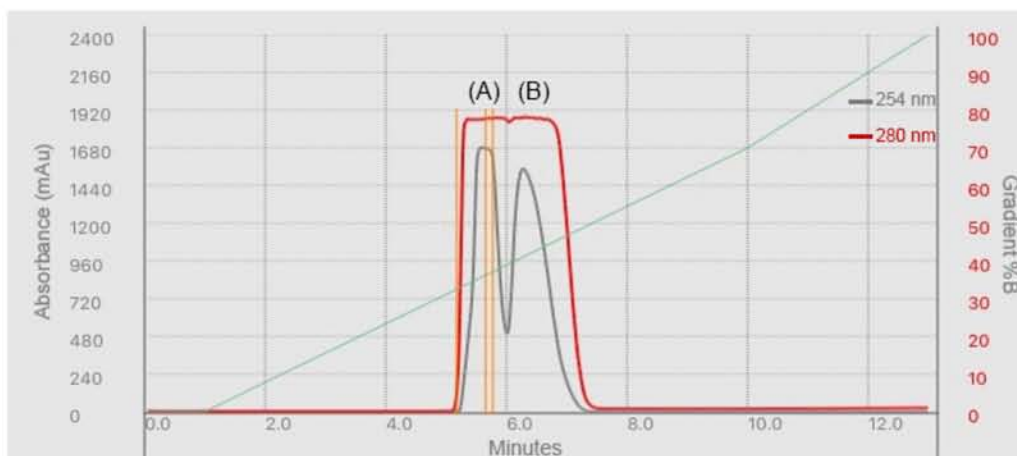


Figure 2: The chromatogram of the sample mixture in Competitor cartridge.  
(A: methyl-4-hydroxybenzoate; B: 2-amino-5-chloropyridine.)

Sample was dissolved in 2 mL of acetone and absorbed onto 1g of Celite. Acetone was removed by vacuum and the absorbed sample was placed directly in the flash cartridge. Sample was then eluted according to the parameters as shown in Table 1.

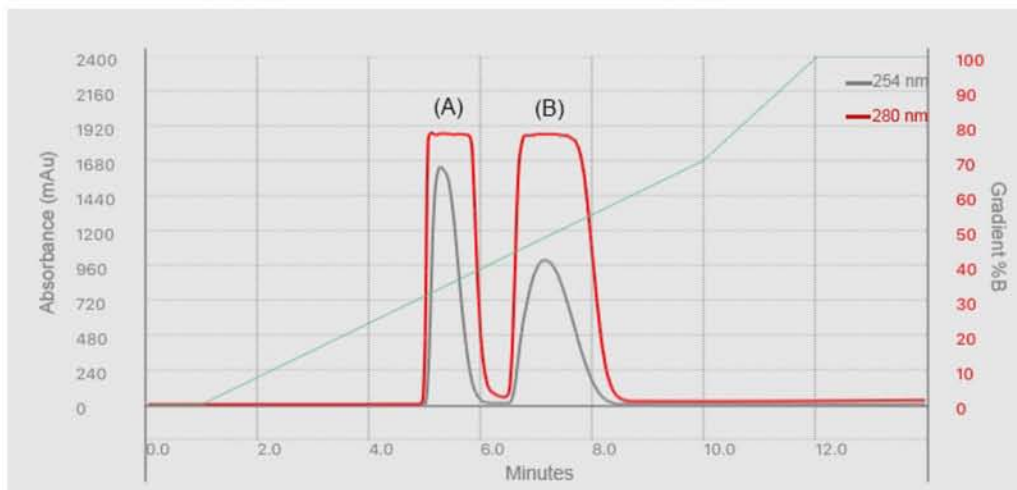


Figure 3: The chromatogram of the sample mixture in Santai's cartridge.  
(A: methyl-4-hydroxybenzoate; B: 2-amino-5-chloropyridine.)

### Conclusion

Comparing with the result from competitor's cartridge, Santai's iLOK™-SL cartridge shows better resolution for the sample mixture as shown in Figure 2 and Figure 3. The reason for this may be due to higher column bed height for Santai V.S. competitor since Santai's iLOK™ cartridge is thinner and longer than competitor's cartridge. Another possible reason could be recognized as more materials were pre-packed for Santai's cartridge as compared with the one from competitor though the cartridge specification was the same for both products.

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