



# Large Pore SEC (1000 Å and 2000 Å) for Biomolecule Separation

# APPLICATION NOTES

## Highlighted FACTS:

- ▶ SRT® SEC-1000 and SRT® SEC-2000 provide high separation resolution of very large biomolecules and their fragments.
- ▶ A large variety of sample types such as virus like particles, hydrophobic protein complexes and biological polymers can be resolved successfully on large pore (1000 Å and 2000 Å) SEC.
- ▶ Combinations of large pore size SEC columns in tandem exhibit excellent separation for an expanded molecular weight range of biomolecules.

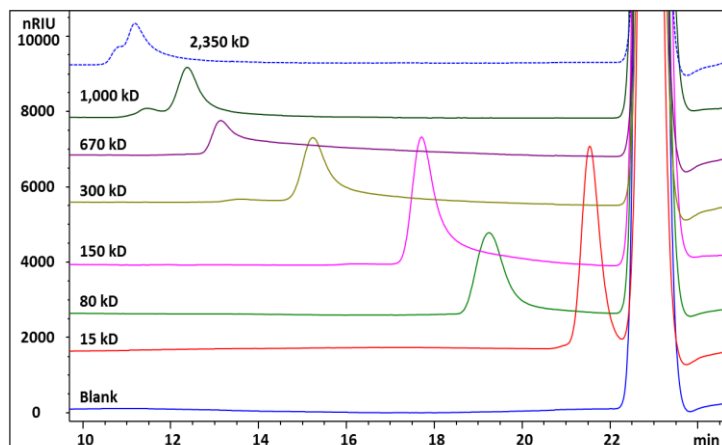
## What are SRT® SEC-1000 and SRT® SEC-2000?

### Sepax SRT® SEC 1000 Å and 2000 Å (Size Exclusion):

Ultra-high efficiency and resolution SEC columns. SRT® SEC-1000 and SRT® SEC-2000 5 µm are specifically designed for large biomolecule separations. Delivering unrivaled resolving power and reproducibility. Made of uniform, hydrophilic, and neutral nanometer thick proprietary surface coating chemically bonded on silica, offers long column lifespan and negligible non-specific interactions.

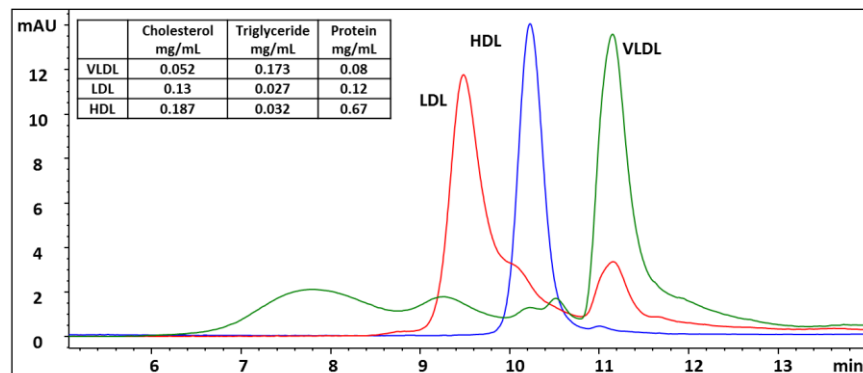
### Analysis of Hyaluronic Acid Samples on SRT® SEC-1000

Column: SRT® SEC-1000 7.8x300 mm, Flow rate: 0.5 mL/min, Detection: RI (35 °C), Column temperature: 35 °C, Mobile phase: 0.2 M NaCl with 0.01% NaN<sub>3</sub>, Injection Volume: 100 µL each



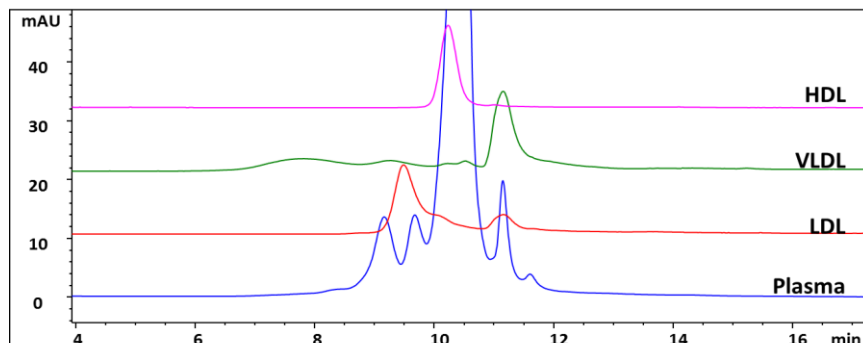
### Analysis of Lipoproteins (LDL, HDL and VLDL) on SRT® SEC-1000

Column: SRT® SEC-1000 7.8x300 mm, Flow rate: 1mL/min, Detection: UV 280 nm, Mobile phase: PBS pH 7.4, Samples: Very Low Density Lipoprotein (VLDL, MW is 6,000 kD), Low Density Lipoprotein (LDL, MW is 1,800 kD) and High Density Lipoprotein (HDL, MW is 67-400 kD), Injection Volume: 10 µL and HDL 100 µL LDL and VLDL



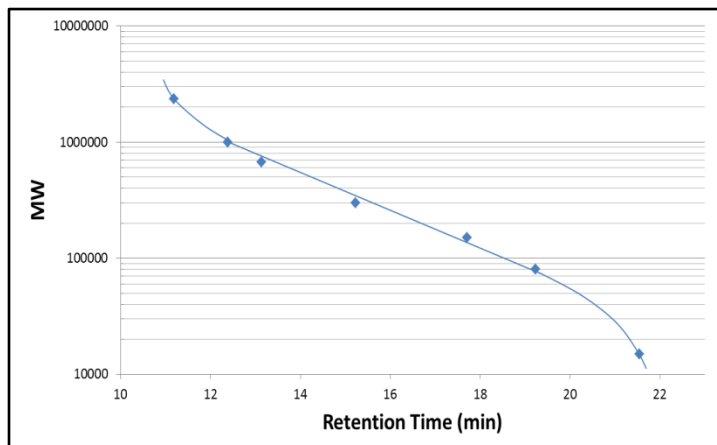
### Analysis of LDL, HDL, VLDL and Plasma on SRT® SEC-1000

Column: SRT® SEC-1000 7.8x300 mm, Flow rate: 1mL/min, Detection: UV 280 nm, Mobile phase: PBS pH 7.4, Samples: Very Low Density Lipoprotein (VLDL, MW is 6,000 kD), Low Density Lipoprotein (LDL, MW is 1,800 kD) and High Density Lipoprotein (HDL, MW is 67-400 kD), Injection Volume: 10 µL HDL and 100 µL LDL. VLDL and Plasma



### Calibration Curve for Hyaluronic Acid on SRT® SEC-1000

Column: SRT® SEC-1000 7.8x300 mm, Flow rate: 0.5 mL/min, Detection: RI (35 °C), Column temperature: 35 °C, Mobile phase: 0.2 M NaCl with 0.01% NaN<sub>3</sub>, Injection Volume: 100 µL each





# Large Pore SEC (1000 Å and 2000 Å) for Biomolecule Separation

## Technical Specifications:

Phase	SRT® SEC-1000 and SRT® SEC-2000
Material	Neutral, hydrophilic film bonded silica
Particle size (µm)	5
Pore size (Å)	1000 and 2000
pH stability	2 – 8.5 (pH 8.5-9.5 can be tolerated temporarily)
Backpressure (psi)	~ 700
Maximum backpressure	~ 3,000
Maximum temperature	~ 80 °C
Mobile phase compatibility	Aqueous and organics

## Ordering Information:

### SRT® SEC-1000 (5 µm, 1000 Å)

P/N	ID x Length (mm)
215950-4605	4.6 x 50 (guard)
215950-4630	4.6 x 300
215950-7805	7.8 x 50 (guard)
215950-7830	7.8 x 300

### SRT® SEC-2000 (5 µm, 2000 Å)

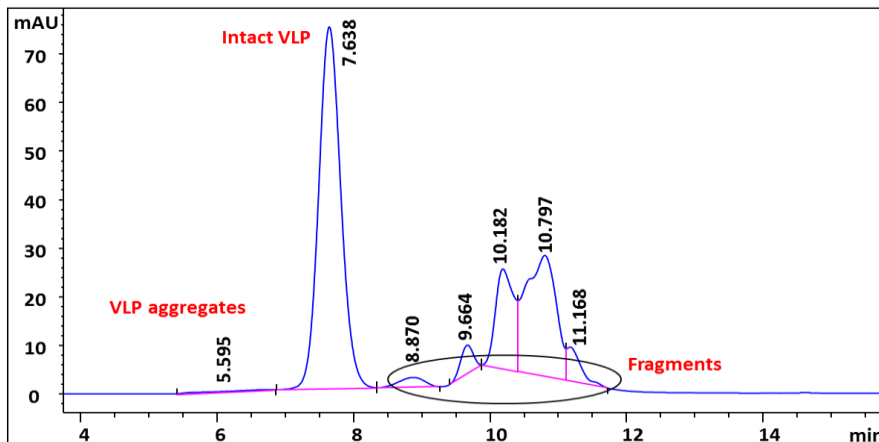
P/N	ID x Length (mm)
215980-4605	4.6 x 50 (guard)
215980-4630	4.6 x 300
215980-7805	7.8 x 50 (guard)
215980-7830	7.8 x 300

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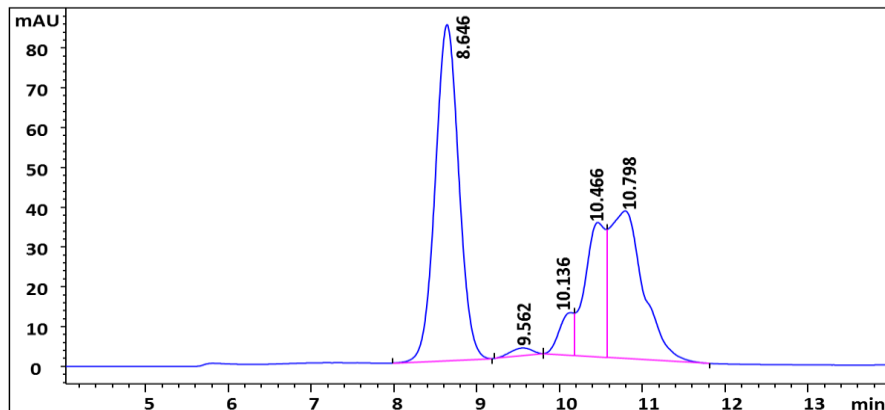
### Analysis of a Virus Like Particle (VLP) on SRT® SEC-1000

Column: SRT® SEC-1000 7.8x300 mm, Flow rate: 1 mL/min, Detection: UV 280 nm, Mobile phase: 25 mM Tris, 150 mM NaCl and 1 mM CaCl<sub>2</sub> pH 7.5, Sample: VLP (14,000 kD) at 1 mg/mL, Injection Volume: 50 µL



### Analysis of a Virus Like Particle (VLP) on SRT® SEC-2000

Column: SRT® SEC-2000 7.8x300 mm, Flow rate: 1 mL/min, Detection: UV 280 nm, Mobile phase: 25 mM Tris, 150 mM NaCl and 1 mM CaCl<sub>2</sub> pH 7.5, Sample: VLP (14,000 kD) at 1 mg/mL, Injection Volume: 50 µL



### Analysis of a VLP on SRT® SEC-1000 and SRT® SEC-2000 in Tandem

Column: SRT® SEC-1000 7.8x300 mm and SRT® SEC-2000 7.8x300 mm in tandem, Flow rate: 1 mL/min, Detection: UV 280 nm, Mobile phase: 25 mM Tris, 150 mM NaCl and 1 mM CaCl<sub>2</sub> pH 7.5, Sample: VLP (14,000 kD) at 1 mg/mL, Injection Volume: 50 µL

