

SorbaRose™ Beaded Cross-Linked Agarose Solid Phase

Researchers across all industries are consistently asking for products that allow them to spend less and discover more. Sorbtech helps them achieve this with our enhanced line of size exclusion chromatography products.

SorbaRose™ enables labs to test within a broader range of solid phases, reduce budgets, and test with confidence. Developed for high resolution fractionation of biomolecules, SorbaRose™ is a beaded cross-linked agarose solid phase that has varying concentrations of agarose - either 4 or 6% (w/w). Sorbtech offers unmodified and chemically modified SorbaRose™ solid phases suitable for all applications.

Advantages

- Available for a wide variety of applications- modified and unmodified
- Tolerant of most Clean In Place (CIP) procedures based on ligand
- Available from pilot size up to a process scale
- Suitable for most solvents

Available formats

- Bulk resins
- SorbaSep™ columns
- FPLC columns
- MINI Spin columns
- GraviPure columns
- Microplates
- Column arrays
- Packed SNAP columns

Recommended applications

- Antibody purification
- High resolution fractionation of biomolecules
- Purification of human IgG
- Immobilize enzymes, antibodies, and other proteins



Specifications

Product	Base Material	Agarose Concentration	Particle Size	Exclusion Limit (kD)	Max Pressure (bar)	Max Flow (mL/min)
SorbaRose™ CL4	Cross Linked Agarose	4%	100 µm	Up to 20,000	≤1.9	≤4
SorbaRose™ CL6	Cross Linked Agarose	6%	100 µm	Up to 4,000	≤2.2	≤10
SorbaRose™ FF4	Flash Flow Agarose	4%	100 µm	Up to 30,000	≤3.5	≤35
SorbaRose™ FF6	Flash Flow Agarose	6%	100 µm	Up to 4,000	≤4.5	≤60
SorbaRose™ HC4	High Performance Agarose	4%	35 µm	Up to 20,000	≤3.0	≤30
SorbaRose™ HC6	High Performance Agarose	6%	35 µm	Up to 4,000	≤3.0	≤40

SorbaRose™ - CL, FF, & HP

For unmodified solid phases, Sorbtech offers SorbaRose™ CL for labs on a budget, SorbaRose™ FF for high throughput with the fastest flow rate, and SorbaRose™ HP for the best resolution at a fast flow rate.

	SorbaRose™ CL		SorbaRose™ FF		SorbaRose™ HP	
Particle size (µm)	100		100		35	
Agarose Concentration	4.0%	6.0%	4.0%	6.0%	4.0%	6.0%
Pore size (Å)	Up to 20,000	Up to 4,000	Up to 30,000	Up to 4,000	Up to 20,000	Up to 4,000
Exclusion limit (kDa)	20,000	4,000	30,000	4,000	20,000	4,000
Max. flow rate (mL/min)	≤4	≤10	≤35	≤60	≤30	≤40
Max. pressure (bar)	≤1.9 bar	≤2.2	≤3.5	≤4.5	≤3.0	≤3.0
Autoclavable	Yes, 121°C for 20 minutes					
Solvents	Ethanol; 1M NaOH; 6M Guanidine hydrochloride; 8M Urea, etc.					
Storage	20% Ethanol					
Shelf-life	5 years from date of manufacture					

Affinity Chromatography (AC)

Allows for rapid separation of biomolecules based on compound specific binding and interactions. Typically, these purifications result in a single pure fraction. For affinity chromatography these phases are organized by the desired target:

- Antibody - For purifying antibodies and fragments
- Tag - For purifying biomolecules based on linker tag interaction
- General - For purifying via specific interactions not specified above

Cat. #	Product	Agarose Concentration	Max Flow (mL/min)	Target	Ligand Density	Ionic Capacity (mmol/mL)
801021	SorbaRose™ Heparin FF6	6%	≤8	Heparin Binding Molecules	Proprietary	
	SorbaRose™ Heparin HC	6%	≤4	Heparin Binding Molecules	Proprietary	
801022	SorbaRose™ Protien A Endure FF4	4%	≤5	Antibody	6 mg/mL	<30
801023	SorbaRose™ Protien A FF4	4%	≤5	Antibody	6 mg/mL	<30
	SorbaRose™ Protien A HC	6%	≤4	Antibody	Proprietary	<75
801024	SorbaRose™ Protien G FF4	4%	≤5	Antibody	Proprietary	<20
	SorbaRose™ Protien L CL4	4%	≤5	Antibody	3 mg/mL	<10
	SorbaRose™ Biotin CL4	4%	≤5	Avidin Streptavidin	Proprietary	
801044	SorbaRose™ Co-NTA FF	6%	≤8	His-tag	<15 µmol M ²⁺ /mL	
	SorbaRose™ Cu-NTA FF	6%	≤8	His-tag	<15 µmol M ²⁺ /mL	
801045	SorbaRose™ Glutathione FF	4%	≤5	GST- tag	<20 µmol M ²⁺ /mL	
	SorbaRose™ IDA	6%	≤8	His-tag	<30 µmol M ²⁺ /mL	
801046	SorbaRose™ Ni-NTA FF	6%	≤8	His-tag	<15 µmol M ²⁺ /mL	
801047	SorbaRose™ NTA (metal-free) FF	6%	≤8	His-tag	<15 µmol M ²⁺ /mL	
	SorbaRose™ Streptavidin HC	6%	≤4	Biotin	Proprietary	
801048	SorbaRose™ Zn-NTA FF	6%	≤8	His-tag	<15 µmol M ²⁺ /mL	

The information contained in this data sheet is believed to be a true and accurate representation of average properties obtained from current production and should not be considered guaranteed specifications. Any recommendations or suggestions are made without warranty or guarantee, since the conditions of use are beyond our control. Nothing contained herein shall be construed to imply permission, inducement, or recommendation to practice any invention or patent owned by others without authorization from the owner of the patent.

Activated Solid Phases (ASP)

Uses covalent bonding to selectively bind the desired complex. These phases use both the 4 and 6% concentrations of Agarose and contain seven distinct modifiers to suit your needs.

- Antibody - For purifying antibodies and fragments
- Tag - For purifying biomolecules based on linker tag interaction
- General - For purifying via specific interactions not specified above

Cat. #	Product	Agarose Concentration	Max Flow (mL/min)	Binds to
801013	SorbaRose™ Aldehyde-activated FF4	4%	≤5	(-NH ₂)
	SorbaRose™ Aldehyde-activated FF6	6%	≤8	(-NH ₂)
801014	SorbaRose™ Amine-activated FF6	6%	≤8	(-COOH, -CHO)
	SorbaRose™ Amine-activated FF4	4%	≤5	(-COOH, -CHO)
801015	SorbaRose™ Carboxyl activated FF6	6%	≤8	(-NH ₂)
801016	SorbaRose™ Carboxyl-activated FF4	4%	≤5	(-NH ₂)
801017	SorbaRose™ Epoxy-activated FF4	4%	≤5	(-NH ₂ , -SH, -OH)
801018	SorbaRose™ Epoxy-activated FF6	6%	≤8	(-NH ₂ , -SH, -OH)
	SorbaRose™ Hydrazide-activated FF4	4%	≤5	(-HC=O, C=O)
801019	SorbaRose™ NHS-activated FF4	4%	≤5	(-NH ₂)
801020	SorbaRose™ NHS-activated FF6	6%	≤8	(-NH ₂)
	SorbaRose™ Thiol-activated FF4	4%	≤5	(-SH)
	SorbaRose™ Thiol-activated FF6	6%	≤8	(-SH)

Hydrophobic Interaction Chromatography (HIC)

Relies on the interaction of the hydrophobic surface groups of the SorbaRose™ with the target compound. For hydrophobic interaction chromatography the hydrophobicity typically increases based on the chain length of the modifier:

Butyl < Pentyl < Hexyl < Heptyl < Octyl < Phenyl

Cat. #	Product	Agarose Concentration	Max Flow (mL/min)	Functional Group	Ionic Capacity (mmol/mL)
801025	SorbaRose™ Butyl FF4	4%	≤5	(-C ₄ H ₉)	
801026	SorbaRose™ Butyl FF6	6%	≤8	(-C ₄ H ₉)	
	SorbaRose™ Pentyl FF4	4%	≤5	(-C ₅ H ₁₁)	<30
	SorbaRose™ Pentyl FF6	6%	≤8	(-C ₅ H ₁₁)	<30
	SorbaRose™ Hexyl FF4	4%	≤5	(-C ₆ H ₁₃)	<75
	SorbaRose™ Hexyl FF6	6%	≤8	(-C ₆ H ₁₃)	<20
	SorbaRose™ Heptyl FF4	4%	≤5	(-C ₇ H ₁₅)	<10
	SorbaRose™ Heptyl FF6	6%	≤8	(-C ₇ H ₁₅)	
	SorbaRose™ Octyl FF4	4%	≤5	(-C ₈ H ₁₇)	
	SorbaRose™ Octyl FF6	6%	≤8	(-C ₈ H ₁₇)	
801045	SorbaRose™ Phenyl (High sub.) FF6	6%	≤8	(-C ₆ H ₅)	
	SorbaRose™ Phenyl FF4	4%	≤5	(-C ₆ H ₅)	
801046	SorbaRose™ Phenyl FF6	6%	≤8	(-C ₆ H ₅)	
801047	SorbaRose™ Phenyl HC	6%	≤4	(-C ₆ H ₅)	

The information contained in this data sheet is believed to be a true and accurate representation of average properties obtained from current production and should not be considered guaranteed specifications. Any recommendations or suggestions are made without warranty or guarantee, since the conditions of use are beyond our control. Nothing contained herein shall be construed to imply permission, inducement, or recommendation to practice any invention or patent owned by others without authorization from the owner of the patent.

Ion Exchange Chromatography (IEC)

While similar to affinity chromatography, IEC relies on anion and cation exchange. The Sorbtech IEC solid phases are offered in 35 and 100 μm sizes with varying strengths of both anion and cation exchangers including:

- CM - carboxymethyl - weak cation
- DEAE - diethylaminoethyl - weak anion
- Q - quaternary ammonium - strong anion
- SP - sulphopropyl - strong cation

Cat. #	Product	Agarose Concentration	Max Flow (mL/min)	Exchange Process	Particle Size (μm)	Ionic Capacity (mmol/mL)
801033	SorbaRose™ CM FF6	6%	≤ 8	Weak Cation	100	0.12
801034	SorbaRose™ CM HC	4%	≤ 4	Weak Cation	35	0.11
801035	SorbaRose™ DEAE FF6	6%	≤ 8	Weak Anion	100	0.12
801036	SorbaRose™ DEAE HC	4%	≤ 4	Weak Anion	35	0.11
801037	SorbaRose™ Q FF6	6%	≤ 8	Strong Anion	100	0.12
801038	SorbaRose™ Q HC	4%	≤ 4	Strong Anion	35	0.11
801039	SorbaRose™ SP FF6	6%	≤ 8	Strong Cation	100	0.12
801040	SorbaRose™ SP HC	4%	≤ 4	Strong Cation	35	0.11

The information contained in this data sheet is believed to be a true and accurate representation of average properties obtained from current production and should not be considered guaranteed specifications. Any recommendations or suggestions are made without warranty or guarantee, since the conditions of use are beyond our control. Nothing contained herein shall be construed to imply permission, inducement, or recommendation to practice any invention or patent owned by others without authorization from the owner of the patent.