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Cation Exchange Chromatography SpinColumns

QuikPrep® SpinColumns™ for cation exchange chromatography are filled with a negatively charged resin to attract positively charged molecules from samples.

Matrices are available in either strong or weak ionized states. This expresses the ability of the exchange matrix to maintain its charge with a change in pH and not the strength of the bond. Strong exchangers have functional groups that will always remain ionized, while the functional groups of the weak exchangers can be neutralized by changing the pH.

Item No.	Description
74-7235	Ultra-Micro SpinColumn, Strong Cation SP, Qty. of 24
74-7215	Ultra-Micro SpinColumn, Strong Cation SP, Qty. of 96
74-4706	Micro SpinColumn, Strong Cation SP, Qty. of 24
74-4702	Micro SpinColumn, Strong Cation SP, Qty. of 96
74-4206	Macro SpinColumn, Strong Cation SP, Qty. of 24
74-4202	Macro SpinColumn, Strong Cation SP, Qty. of 96
74-5625	96-Well Micro SpinColumn, Strong Cation SP, 1.1 ml Reservoir Plate (1)
74-5665	96-Well Macro SpinColumns, Strong Cation SP, 1.1 ml Reservoir Plate (1)
74-4426	Ultra-Micro SpinColumn, Strong Cation SA, Qty. of 24

Item No.	Description
74-4425	Ultra-Micro SpinColumn, Strong Cation SA, Qty. of 96
74-4413	Micro SpinColumn, Strong Cation SA, Qty. of 24
74-4412	Micro SpinColumn, Strong Cation SA, Qty. of 96
74-4153	Macro SpinColumn Strong Cation SA, Qty. of 24
74-4152	Macro SpinColumn, Strong Cation SA, Qty. of 96
74-5632	96-Well Micro SpinColumn, Strong Cation SA, 1.1 ml Reservoir Plate (1)
74-5672	96-Well Macro SpinColumns, Strong Cation SA, 1.1 ml Reservoir Plate (1)
74-7236	Ultra-Micro SpinColumn, Weak Cation CM, Qty. of 24
74-7216	Ultra-Micro SpinColumn, Weak Cation CM, Qty. of 96
74-4707	Micro SpinColumn, Weak Cation CM, Qty. of 24
74-4703	Micro SpinColumn, Weak Cation CM, Qty. of 96
74-4207	Macro SpinColumn, Weak Cation CM, Qty. of 24
74-4203	Macro SpinColumn, Weak Cation CM, Qty. of 96
74-5627	96-Well Micro SpinColumn, Weak Cation CM, 1.1 ml Reservoir Plate (1)
74-5667	96-Well Macro SpinColumns, Weak Cation CM, 1.1 ml Reservoir Plate (1)

Item No.	Description
74-4427	Ultra-Micro SpinColumn, Weak Cation AA, Qty. of 96
74-4415	Micro SpinColumn, Weak Cation AA, Qty. of 24
74-4414	Micro SpinColumn, Weak Cation AA, Qty. of 96
74-4155	Macro SpinColumn, Weak Cation AA, Qty. of 24
74-4154	Macro SpinColumn, Weak Cation AA, Qty. of 96
74-5674	96-Well Macro SpinColumns, Weak Cation AA, 1.1 ml Reservoir Plate (1)

DETAILS

QuikPrep® SpinColumns™ for cation exchange chromatography are filled with a negatively charged resin to attract positively charged molecules from samples.

Matrices are available in either strong or weak ionized states. This expresses the ability of the exchange matrix to maintain its charge with a change in pH and not the strength of the bond. Strong exchangers have functional groups that will always remain ionized, while the functional groups of the weak exchangers can be neutralized by changing the pH.

Available Matrices (Packing Materials)

Matrix	Functional Group	pH Range	Ionic Capacity	Applications
Strong Cation SA	Poly 2-sulfoethyl aspartamide	2.7 to 4.0	0.4 to 0.5 mmol (K+)/g	High molecular weight protein separation
Strong Cation SP	Sulfopropyl	6 to 10	0.18 to 0.25 mmol (Na+)/ml	Protein separation
Weak Cation AA	Poly (aspartic acid)	4 to 8	0.4 to 0.5 mmol (triethylammonium ion)/g	Protein separation
Weak Cation CM	Carboyxmethyl	5 to 9	0.09 to 0.13 mmol (Na+)/ml	Protein separation

SA = Polysulfoethyl A™ (silica based) SP = SP-Sepharose Fast Flow AA = PolyCAT A™ (poly aspartic acid attached to silica) CM = Carboxymethyl-cellulose

About Ion Exchange Chromatography

Ion exchange chromatography (IEX) is an effective method of sample purification and fractionation based on molecular charge. Samples are passed through spin columns containing a predetermined matrix. Target molecules are captured and held by ionic bonds to the insoluble stationary matrix while the remaining sample is allowed to flow through the column. The ionic bonds are then broken through the addition of an elution buffer which changes the pH and alters the ionic strength of the molecules being retained. The bound molecules are eluted in order of the least to most strongly bound allowing for the collection of samples in fractions for separate analysis.

SPECIFICATIONS

Available Matrices (Packing Materials)

Matrix	Functional Group	pH Range	Ionic Capacity	Applications
Strong Cation SA	Poly 2-sulfoethyl aspartamide	2.7 to 4.0	0.4 to 0.5 mmol (K+)/g	High molecular weight protein separation

Strong Cation SP	Sulfopropyl	6 to 10	0.18 to 0.25 mmol (Na+)/ml	Protein separation
Weak Cation AA	Poly (aspartic acid)	4 to 8	0.4 to 0.5 mmol (triethylammonium ion)/g	Protein separation
Weak Cation CM	Carboyxmethyl	5 to 9	0.09 to 0.13 mmol (Na+)/ml	Protein separation

SA = Polysulfoethyl A™ (silica based) SP = SP-Sepharose Fast Flow AA = PolyCAT A™ (poly aspartic acid attached to silica) CM = Carboxymethyl-cellulose

SpinColumn Types

Column Type	**Sample Volume**	**Sample Capacity**	**Suggested Elution Volume**	**Included**	**Choice of Packing Materials (Matrices)**
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps	Weak Cation AA, Weak Cation CM, Strong Cation SA, Strong Cation SP
Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps	Weak Cation AA, Weak Cation CM, Strong Cation SA, Strong Cation SP
Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps	Weak Cation AA, Weak Cation CM, Strong Cation SA, Strong Cation SP
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 96-well collection plates (1.1 ml per well)	Weak Cation AA, Weak Cation CM, Strong Cation SA, Strong Cation SP
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	Two 96-well collection plates (1.1 ml per well)	Weak Cation AA, Weak Cation CM, Strong Cation SA, Strong Cation SP

Normal Phase Chromatography SpinColumns

QuikPrep® SpinColumns™ for normal phase chromatography are packed with a stationary polar phase. Available matrixes include: Cyano (CN), Amino (NH_2) and PHEA (Polyhydroxyethyl Aspartamide) and Silica. See Description and Specifications for details.

Normal phase chromatography uses a spin column packed with a stationary polar phase, and a non-polar mobile phase is passed through the column. Molecules with similar polarities attract one another causing the least polar compounds to elute first as the more polar compounds are held by the polar matrix. These polar compounds can then be released through the addition of an elution buffer.

Item No.	Description
74-7231	Ultra-Micro SpinColumns, NH2, Qty. of 24
74-7211	Ultra-Micro SpinColumn, NH2, Qty. of 96
74-4611	Micro SpinColumn, NH2, Qty. of 24
74-4605	Micro SpinColumn, NH2, Qty. of 96
74-4111	Macro SpinColumn, NH2, Qty. of 24
74-4104	Macro SpinColumn, NH2, Qty. of 96
74-5622	96-Well Micro SpinColumn, NH2, 1.1 ml Reservoir Plate (1)
74-5662	96-Well Macro SpinColumns, NH2, 1.1 ml Reservoir Plate (1)
74-7230	Ultra-Micro SpinColumns, CN, Qty. of 24
74-7210	Ultra-Micro SpinColumn, CN, Qty. of 96

Item No.	Description
74-4610	Micro SpinColumn, CN, Qty. of 24
74-4604	Micro SpinColumn, CN, Qty. of 96
74-4110	Macro SpinColumn, CN, Qty. of 24
74-4106	Macro SpinColumn, CN, Qty. of 96
74-5621	96-Well Micro SpinColumn, CN, 1.1 ml Reservoir Plate (1)
74-5661	96-Well Macro SpinColumns, CN, 1.1 ml Reservoir Plate (1)
74-7232	Ultra-Micro SpinColumn, PHEA, Qty. of 24
74-7212	Ultra-Micro SpinColumn, PHEA, Qty. of 96
74-4811	Micro SpinColumn, PHEA, Qty. of 24
74-4805	Micro SpinColumn, PHEA, Qty. of 96
74-4311	Macro SpinColumn, PHEA, Qty. of 24
74-4305	Macro SpinColumn, PHEA, Qty. of 96
74-5623	96-Well Micro SpinColumn, PHEA, 1.1 ml Reservoir Plate (1)
74-5663	96-Well Macro SpinColumns, PHEA, 1.1 ml Reservoir Plate (1)
74-7229	Ultra-Micro SpinColumn, Silica, Qty. of 24
74-7209	Ultra-Micro SpinColumn, Silica, Qty. of 96

Item No.	Description
74-4606	Micro SpinColumn, Silica, Qty. of 24
74-4600	Micro SpinColumn, Silica, Qty. of 96
74-4105	Macro SpinColumn, Silica, Qty. of 24
74-4100	Maro SpinColumn, Silica, Qty. of 96
74-5620	96-Well Micro SpinColumn, Silica, 1.1 ml Reservoir Plate (1)
74-5660	96-Well Macro SpinColumns, Silica, 1.1 ml Reservoir Plate (1)

DETAILS

QuikPrep® SpinColumns™ for normal phase chromatography are packed with a stationary polar phase. Available matrixes include: Cyano (CN), Amino (NH2) and Hydrophilic PHEA (Polyhydroxyethyl Aspartamide) and Silica.

Available Matrices (Packing Materials)

Specifications	**NH_2**	**CN**	**PHEA**
Particle Size, µm	25 to 40	25 to 40	12
Pore Size, À	60	60	300
Pore Volume, ml/gm	0.75	0.75	0.9
Surface Area, 100 m^2/gm	350	350	100
% Carbon (w/w)	N/A	N/A	N/A
Silica Class	Irregular	Irregular	Type B
Acid and Alkali Stable	pH 2 to 8	pH 2 to 8	pH 4 to 6.5

CN = Cyano NH_2 = Amino PHEA = Polyhydroxyethyl Aspartamide (Hydrophilic)

About Normal Phase Chromatography

Normal phase chromatography uses a column packed with a stationary polar phase, and a non-polar mobile phase is passed through the column. Molecules with similar polarities attract one another causing the least polar compounds to elute first as the polar compounds are held by the polar matrix. These polar compounds can then be released through the addition of an elution buffer

SPECIFICATIONS

Available Matrices (Packing Materials)

Specifications	**NH_2**	**CN**	**PHEA**
Particle Size, µm	25 to 40	25 to 40	12
Pore Size, À	60	60	300
Pore Volume, ml/gm	0.75	0.75	0.9
Surface Area, 100 m^2/gm	350	350	100
% Carbon (w/w)	N/A	N/A	N/A
Silica Class	Irregular	Irregular	Type B
Acid and Alkali Stable	pH 2 to 8	pH 2 to 8	pH 4 to 6.5

CN = Cyano NH_2 = Amino PHEA = Polyhydroxyethyl Aspartamide (Hydrophilic)

SpinColumn Types

Column Type	Sample Volume	Sample Capacity	Suggested Elution Volume	Included	Choice of Packing Materials (Matrices)
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps	Amino, Cyano, Hydrophilic PHEA Silica
Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps	Amino, Cyano, Hydrophilic PHEA Silica
Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps	Amino, Cyano, Hydrophilic PHEA Silica
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	One 96-well collection plate (1.1 ml per well)	Amino, Cyano, Hydrophilic PHEA Silica
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	One 96-well collection plates (1.1 ml per well)	Amino, Cyano, Hydrophilic PHEA Silica

Reverse Phase Chromatography SpinColumns

QuikPrep® SpinColumns™ for reverse phase chromatography are packed with a stationary non-polar phase. Available matrixes include: C4, C8, C18 and TARGA C18. See Description and Specifications for details.

Item No.	Description
74-7242	Ultra-Micro SpinColumns, TARGA C18, Qty. of 24
74-7243	Ultra-Micro SpinColumns, TARGA C18, Qty. of 96
74-4613	Micro SpinColumns, TARGA C18, Qty. of 24
74-4614	Micro SpinColumns, TARGA C18, Qty. of 96
74-4115	Macro SpinColumns, TARGA C18, Qty. of 24
74-4116	Macro SpinColumns, TARGA C18, Qty. of 96
74-5637	96-Well Micro SpinColumn, TARGA C18, 1.1 ml Reservoir Plate (1)
74-5676	96-Well Macro SpinColumn, TARGA C18, 1.1 ml Reservoir Plate (1)
74-7226	Ultra-Micro SpinColumn, C18, Qty. of 24
74-7206	Ultra-Micro SpinColumn, C18, Qty. of 96
74-4607	Micro SpinColumn, C18, Qty. of 24
74-4601	Micro SpinColumns, C18, Qty. of 96

Item No.	Description
74-4107	Macro SpinColumn, C18, Qty. of 24
74-4101	Macro SpinColumn, C18, Qty. of 96
74-5617	96-Well Micro SpinColumn, C18, 1.1 ml Reservoir Plate (1)
74-5657	96-Well Macro SpinColumns, C18, 1.1 ml Reservoir Plate (1)
74-7227	Ultra-Micro SpinColumn, C8, Qty. of 24
74-7207	Ultra-Micro SpinColumn, C8, Qty. of 96
74-4608	Micro SpinColumns, C8, Qty. of 24
74-4602	Micro SpinColumn, C8, Qty. of 96
74-4108	Macro SpinColumn, C8, Qty. of 24
74-4102	Macro SpinColumn, C8, Qty. of 96
74-5618	96-Well Micro SpinColumn, C8, 1.1 ml Reservoir Plate (1)
74-5658	96-Well Macro SpinColumns, C8, 1.1 ml Reservoir Plate (1)
74-7228	Ultra-Micro SpinColumn, C4, Qty. of 24
74-7208	Ultra-Micro SpinColumn, C4, Qty. of 96
74-4603	Micro SpinColumn, C4, Qty. of 96
74-4609	Micro SpinColumn, C4, Qty. of 24

Item No.	Description
74-4109	Macro SpinColumn, C4, Qty. of 24
74-4103	Macro SpinColumn, C4, Qty. of 96
74-5619	96-Well Micro SpinColumn, C4, 1.1 ml Reservoir Plate (1)
74-5659	96-Well Macro SpinColumns, C4, 1.1 ml Reservoir Plate (1)

DETAILS

QuikPrep® SpinColumns™ for reverse phase chromatography are packed with a stationary non-polar phase. Available matrixes include: C4, C8, C18 and TARGA C18.

Available Matrices (Packing Materials)

Specifications	C18	C8	C4	TARGA C18
Particle Size, µm	10	5	4.5	10
Pore Size, À	300	300	300	120
Pore Volume, ml/gm	0.9	0.9	0.9	0.8
Surface Area, 100 m^2/gm	100	100	100	330
% Carbon (w/w)	8	5	3	18
Silica Class	Type B	Type B	Type B	Type B
Acid and Alkali Stable	pH 1.5 to 10	pH 1.5 to 10	pH 1.5 to 10	pH 1.5 to 10

C18, C8, C6 = Reverse phase bonding materials ofdifferent alkyl chain lengths
TARGA C18 = Monofunctional C18 phase with a unique polar and bulky end-capping

About Reverse Phase Chromatography

Reverse phase chromatography uses a column packed with a stationary non-polar phase, and a polar mobile phase is passed through the column. Molecules with similar polarities attract one another causing the most polar compounds to elute first as the non-polar compounds are held by the non-polar matrix These non-polar compounds can then be released through the addition of an elution buffer.

SPECIFICATIONS

Available Matrices (Packing Materials)

Specifications	C18	C8	C4	TARGA C18
Particle Size, µm	10	5	4.5	10
Pore Size, À	300	300	300	120
Pore Volume, ml/gm	0.9	0.9	0.9	0.8
Surface Area, 100 m^2/gm	100	100	100	330
% Carbon (w/w)	8	5	3	18
Silica Class	Type B	Type B	Type B	Type B
Acid and Alkali Stable	pH 1.5 to 10	pH 1.5 to 10	pH 1.5 to 10	pH 1.5 to 10

C18, C8, C4 = Reverse phase bonding materials of different alkyl chain lengths
TARGA C18 = Monofunctional C18 phase with a unique polar and bulky end-capping

SpinColumn Types

Column Type	Sample Volume	Sample Capacity	Suggested Elution Volume	Included	Choice of Packing Materials (Matrices)
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps	C4, C8, C18, TARGA C18
Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps	C4, C8, C18, TARGA C18
Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps	C4, C8, C-18, TARGA C18
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 96-well collection plates (1.1 ml per well)	C4, C8, C18, TARGA C18
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	Two 96-well collection plates (1.1 ml per well)	C4, C8, C18, TARGA C18

Anion Exchange Chromatography SpinColumns

QuikPrep® SpinColumns™ for anion exchange chromatography are filled with a positively charged resin to attract negatively charged molecules from samples.

Matrices are available in either strong or weak ionized states. This expresses the ability of the exchange matrix to maintain its charge with a change in pH and not the strength of the bond. Strong exchangers have functional groups that will always remain ionized, while the functional groups of the weak exchangers can be neutralized by changing the pH.

Item No.	Description
74-7233	Ultra-Micro SpinColumn, Strong Anion Q, Qty. of 24
74-7213	Ultra-Micro SpinColumn, Strong Anion Q, Qty. of 96
74-4704	Micro SpinColumn, Strong Anion Q, Qty. of 24
74-4700	Micro SpinColumn, Strong Anion Q, Qty. of 96
74-4204	Macro SpinColumn, Strong Anion Q, Qty. of 24
74-4200	Macro SpinColumn, Strong Anion Q, Qty. of 96
74-5624	96-Well Micro SpinColumn, Strong Anion Q, 1.1 ml Reservoir Plate (1)
74-5664	96-Well Macro SpinColumns, Strong Anion Q, 1.1 ml Reservoir Plate (1)
74-7214	Ultra-Micro SpinColumn, Weak Anion DEAE, Qty. of 96
74-7234	Ultra-Micro SpinColumn, Weak Anion DEAE, Qty. of 24

Item No.	Description
74-4705	Micro SpinColumn, Weak Anion DEAE, Qty. of 24
74-4701	Micro SpinColumn, Weak Anion DEAE, Qty. of 96
74-4205	Macro SpinColumn, Weak Anion DEAE, Qty. of 24
74-4201	Macro SpinColumn, Weak Anion DEAE, Qty. of 96
74-5626	96-Well Micro SpinColumn, Weak Anion DEAE, 1.1 ml Reservoir Plate (1)
74-5666	96-Well Macro SpinColumns, Weak Anion DEAE, 1.1 ml Reservoir Plate (1)
74-4423	Ultra-Micro SpinColumn, Weak Anion Linear PEI, Qty. of 96
74-4411	Micro SpinColumn, Weak Anion Linear PEI, Qty. of 24
74-4410	Micro SpinColumn, Weak Anion Linear PEI, Qty. of 96
74-4151	Macro SpinColumn, Weak Anion Linear PEI, Qty. of 24
74-4150	Macro SpinColumn, Weak Anion Linear PEI, Qty. of 96
74-5633	96-Well Micro SpinColumn, Weak Anion Linear PEI, 1.1 ml Reservoir Plate (1)
74-5673	96-Well Macro SpinColumns, Weak Anion Linear PEI, 1.1 ml Reservoir Plate (1)

DETAILS

QuikPrep® SpinColumns™ for anion exchange chromatography are filled with a positively charged resin to attract negatively charged molecules from samples.

Matrices are available in either strong or weak ionized states. This expresses the ability of the exchange matrix to maintain its charge with a change in pH and not the strength of the bond. Strong exchangers have functional groups that will always remain ionized, while the functional groups of the weak exchangers can be neutralized by changing the pH.

Available Matrices (Packing Materials)

Matrix	Functional Group	pH Range	Ionic Capacity	Applications
Strong Anion Q	Quaternary ammonium	2 to 12	0.18 to 0.25 mmol (sulfate ion)/ml	High molecular weight protein separation
Weak Anion DEAE	Diethylaminoethyl	5 to 9	0.11 to 0.16 mmol (Cl-)/ml	Protein separation

Weak Anion PEI	Linear polyethylenimine	4 to 8	0.4 to 0.5 mmol (OH-)/g	Peptide, protein, nucleic acid and oligonucleotide separation

Q = Q-Sepharose Fast Flow (quaternary amine sepharose) DEAE = Diethylaminoethlyl-cellulose
Linear PEI = PolyWAX LP™ (silica based)

About Ion Exchange Chromatography

Ion exchange chromatography (IEX) is an effective method of sample purification and fractionation based on molecular charge. Samples are passed through spin columns containing a predetermined matrix. Target molecules are captured and held by ionic bonds to the insoluble stationary matrix while the remaining sample is allowed to flow through the column. The ionic bonds are then broken through the addition of an elution buffer which changes the pH and alters the ionic strength of the molecules being retained. The bound molecules are eluted in order of the least to most strongly bound allowing for the collection of samples in fractions for separate analysis.

SPECIFICATIONS

Available Matrices (Packing Materials)

Matrix	Functional Group	pH Range	Ionic Capacity	Applications
Strong Anion Q	Quaternary ammonium	2 to 12	0.18 to 0.25 mmol (sulfate ion)/ml	High molecular weight protein separation
Weak Anion DEAE	Diethylaminoethyl	5 to 9	0.11 to 0.16 mmol (Cl-)/ml	Protein separation
Weak Anion PEI	Linear polyethylenimine	4 to 8	0.4 to 0.5 mmol (OH-)/g	Peptide, protein, nucleic acid and oligonucleotide separation

Q = Q-Sepharose Fast Flow (quaternary amine sepharose) DEAE = Diethylaminoethlyl-cellulose
Linear PEI = PolyWAX LP™ (silica based)

SpinColumn Types

Column Type	Sample Volume	Sample Capacity	Suggested Elution Volume	Included	Choice of Packing Materials (Matrices)
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps	Strong Anion Q, Weak Anion DEAE, Weak Anion PEI

Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps	Strong Anion Q, Weak Anion DEAE, Weak Anion PEI
Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps	Strong Anion Q, Weak Anion DEAE, Weak Anion PEI
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 96-well collection plates (1.1 ml per well)	Strong Anion Q, Weak Anion DEAE, Weak Anion PEI
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	Two 96-well collection plates (1.1 ml per well)	Strong Anion Q, Weak Anion DEAE, Weak Anion PEI

Gel Filtration Chromatography SpinColumns (Size Exclusion)

QuikPrep® SpinColumns™ for gel fitration chromatography can be used for protein purification, buffer exchange, desalting, or for group separation.

Gel filtration, also called size-exclusion chromatography is an easy-to-use method for separation of molecules with different molecular sizes, using mild conditions.

Item No.	Description
74-7220	Ultra-Micro SpinColumns, G-10 , Qty. of 24
74-7200	Ultra-Micro SpinColumns, G-10, Qty. of 96
74-4504	Micro SpinColumns, G-10, Qty. of 24
74-4500	Micro SpinColumns, G-10, Qty. of 96
74-3904	Macro SpinColumns, G-10, Qty. of 24
74-3900	Macro SpinColumns, G-10, Qty. of 96
74-5611	96-Well Micro SpinColumns, G-10, 1.1 ml Reservoir Plate (1)
74-5651	96-Well Macro SpinColumns, G-10, 1.1 ml Reservoir Plate (1)
74-7221	Ultra-Micro SpinColumns, G-25, Qty. of 24
74-7201	Ultra-Micro SpinColumns, G-25, Qty. of 96
74-4505	Micro SpinColumns, G-25, Qty. of 24
74-4501	Micro SpinColumns, G-25, Qty. of 96

Item No.	Description
74-3905	Macro SpinColumns, G-25, Qty. of 24
74-3901	Macro SpinColumns, G-25, Qty. of 96
74-5612	96-Well Micro SpinColumns, G-25, 1.1 ml Reservoir Plate (1)
74-5652	96-Well Macro SpinColumns, G-25, 1.1 ml Reservoir Plate (1)
74-7222	Ultra-Micro SpinColumns, G-50, Qty. of 24
74-7202	Ultra-Micro SpinColumns, G-50, Qty. of 96
74-4506	Micro SpinColumns, G-50, Qty. of 24
74-4502	Micro SpinColumns, G-50, Qty. of 96
74-3906	Macro SpinColumns, G-50, Qty. of 24
74-3902	Macro SpinColumns, G-50, Qty. of 96
74-5613	96-Well Micro SpinColumns, G-50, 1.1 ml Reservoir Plate (1)
74-5653	96-Well Macro SpinColumns, G-50, 1.1 ml Reservoir Plate (1)
74-7223	Ultra-Micro SpinColumns, G-100, Qty. of 24
74-7203	Ultra-Micro SpinColumns, G-100, Qty. of 96
74-4507	Micro SpinColumns, G-100, Qty. of 24
74-4503	Micro SpinColumns, G-100, Qty. of 96

Item No.	Description
74-3907	Macro SpinColumns, G-100, Qty. of 24
74-3903	Macro SpinColumns, G-100, Qty. of 96
74-5614	96-Well Micro SpinColumns, G-100, 1.1 ml Reservoir Plate (1)
74-5654	96-Well Macro SpinColumns, G-100, 1.1 ml Reservoir Plate (1)
74-7224	Ultra-Micro SpinColumns, P-2, Qty. of 24
74-7204	Ultra-Micro SpinColumns, P-2, Qty. of 96
74-4808	Micro SpinColumns, P-2, Qty. of 24
74-4802	Micro SpinColumns, P-2, Qty. of 96
74-4308	Macro SpinColumns, P-2, Qty. of 24
74-4302	Macro SpinColumns, P-2, Qty. of 96
74-5615	96-Well Micro SpinColumns, P-2, 1.1 ml Reservoir Plate (1)
74-5655	96-Well Macro SpinColumns, P-2, 1.1 ml Reservoir Plate (1)
74-7225	Ultra-Micro SpinColumns, P-6, Qty. of 24
74-7205	Ultra-Micro SpinColumns, P-6, Qty. of 96
74-4809	Micro SpinColumns, P-6, Qty. of 24
74-4803	Micro SpinColumns, P-6, Qty. of 96

Item No.	Description
74-4309	Macro SpinColumns, P-6, Qty. of 24
74-4303	Macro SpinColumns, P-6, Qty. of 96
74-5616	96-Well Micro SpinColumns, P-6, 1.1 ml Reservoir Plate (1)
74-5656	96-Well Macro SpinColumns, P-6, 1.1 ml Reservoir Plate (1)
74-3908	Macro SpinColumn, P-30, Qty. of 24
74-3892	Macro SpinColumn, P-30, Qty. of 96

DETAILS

QuikPrep® SpinColumns™ for gel filtration chromatography can be used for protein purification, buffer exchange, desalting, or for group separation.

Gel filtration, also called size-exclusion chromatography is an easy-to-use method for separation of molecules with different molecular sizes, using mild conditions. Gel Filtration uses the size of molecules in solution to determine separation.

SpinColumns have short media packing so the samples are separated by size, the large molecules travel out of the column with the void volume the smaller molecules, salts, etc. remain in the column. Desalting columns are used not only to remove low molecular weight contaminants such as salt, but also for buffer exchange before and after different chromatography techniques and for the rapid removal of reagents to terminate a reaction.

Examples of group separations include:

- Removal of unincorporated nucleotides during DNA sequencing
- Removal of free low molecular weight labels
- Termination of reactions between macromolecules and low molecular weight reactants
- Removal of products, cofactors or inhibitors from enzymes
- Removal of unreacted radiolabels such as [α-^{32}P]-ATP from nucleic acid labeling reactions

Available Matrices (Packing Materials)

Matrix	Particle Diameter, µm	Fractionation Range, Da	Exclusion Limit, Da	Applications
G-10	40 to 120 (dry)	<700	700	Desalting peptides
G-25	40 to 120 (dry)	1,000 to 5,000	5,000	Desalting proteins and nucleic acids
G-50	20 to 80 (dry)	1,000 to 30,000	30,000	Removal of free labels from labeled macromolecules
G-100	40 to 120 (dry)	4,000 to 150,000	150,000	Molecular weight determination
P-2	<45 (wet)	100 to 1,800	1,800	Rapid carbohydrate and small peptide separations and desalting
P-6	90 to 180 (wet)	1,000 to 8,000	6,000	Purification of proteins and polypeptides
P-30	90 to 180 (wet)	2,500 to 40,000	40,000	Purification of proteins

G-10, G-25, G-50- G-100 = Sephadex P-2, P-6, P-30 = Porous polyacrylamide beads

For additional column specifications and technical information, please download our .

SPECIFICATIONS

Available Matrices (Packing Materials)

Matrix	Particle Diameter, µm	Fractionation Range, Da	Exclusion Limit, Da	Applications
G-10	40 to 120 (dry)	<700	700	Desalting peptides
G-25	40 to 120 (dry)	1,000 to 5,000	5,000	Desalting proteins and nucleic acids
G-50	20 to 80 (dry)	1,000 to 30,000	30,000	Removal of free labels from labeled macromolecules
G-100	40 to 120 (dry)	4,000 to 150,000	150,000	Molecular weight determination
P-2	<45 (wet)	100 to 1,800	1,800	Rapid carbohydrate and small peptide separations and desalting
P-6	90 to 180 (wet)	1,000 to 8,000	6,000	Purification of proteins and polypeptides
P-30	90 to 180 (wet)	2,500 to 40,000	40,000	Purification of proteins

G-10, G-25, G-50- G-100 = Sephadex P-2, P-6, P-30 = Porous polyacrylamide beads

SpinColumn Types

Column Type	Sample Volume	Sample Capacity	Suggested Elution Volume	Included	Choice of Packing Materials (Matrices)
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps	G-10, G-25, G-50, G-100, P-2, P-6
Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps	G-10, G-25, G-50, G-100, P-2, P-6
Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps	G-10, G-25, G-50, G-100, P-2, P-6, P-30
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 96-well collection plates (1.1 ml per well)	G-10, G-25, G-50, G-100, P-2, P-6
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	Two 96-well collection plates (1.1 ml per well)	G-10, G-25, G-50, G-100, P-2, P-6

For additional column specifications and technical information, please download our .

Empty Chromatography SpinColumns

Empty QuikPrep® SpinColumns™ provide the flexibility to fill columns with your own chromatographic material. These SpinColumns are available in five different sizes to suit your needs.

Item No.	Description
74-4421	Ultra-Micro/Micro SpinColumns, Empty, 5 - 10 µm frit, Qty. of 24
74-4420	Ultra-Micro/Micro SpinColumns, Empty, 5 - 10 µm frit, Qty. of 96
74-4401	Ultra-Micro/Micro SpinColumns, Empty, 20 µm frit, Qty. of 24
74-4400	Ultra-Micro/Micro SpinColumns, Empty, 20 µm frit, Qty. of 96
74-4431	Ultra-Micro/Micro SpinColumns, Empty, 40 µm frit, Qty. of 24
74-4430	Ultra-Micro/Micro SpinColumns, Empty, 40 µm frit, Qty. of 96
74-3821	Macro SpinColumns, Empty, 5 - 10 µm Frit, Qty. of 24
74-3820	Macro SpinColumns, Empty, 5 - 10 µm Frit, Qty. of 96
74-3841	Macro SpinColumns, Empty, 20 µm Frit, Qty. of 24
74-3840	Macro SpinColumns, Empty, 20 µm Frit, Qty. of 96

Item No.	Description
74-3801	Macro SpinColumns, Empty, 40 µm Frit, Qty. of 24
74-5635	Empty 96-Well Micro SpinColumn with 7 µm frit, 1.1 ml Reservoir Plate (1)
74-5610	Empty 96-Well Micro SpinColumn with 25 µm frit, 1.1 ml Reservoir Plate (1)
74-5649	Empty 96-Well Macro SpinColumn with 7 µm frit, 1.1 ml Reservoir Plate (1)
74-5650	Empty 96-Well Macro SpinColumn with 25 µm frit, 1.1 ml Reservoir Plate (1)

DETAILS

Empty QuikPrep® SpinColumns™ provide the flexibility to fill columns with your own chromatographic material. These SpinColumns are available in five different sizes to suit your needs.

SpinColumns can also be prefilled with your custom material.

SPECIFICATIONS

Column Type	Sample Volume	Sample Capacity	Suggested Elution Volume	Included
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps
Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps
Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 96-well collection plates (1.1 ml per well)
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	Two 96-well collection plates (1.1 ml per well)

Activated Charcoal SpinColumns

QuikPrep® SpinColumns™ with activated charcoal packing materials can be used for DNA, protein and peptide purification; small molecule, carbohydrate, salt and radiolabel removal; Nick translation; and affinity separation. Activated charcoal retains polar solutes. Salt will not be retained.

Item No.	Description
74-4806	Micro SpinColumns, Activated Charcoal, Qty. of 24
74-4800	Micro SpinColumns, Activated Charcoal, Qty. of 96
74-4306	Macro SpinColumns, Activated Charcoal, Qty. of 24
74-4300	Macro SpinColumns, Activated Charcoal, Qty. of 96
74-5629	96-Well Micro SpinColumns, Activated Charcoal, 1.1 ml Reservoir Plate (1)
74-5669	96-Well Macro SpinColumns, Activated Charcoal, 1.1 ml Reservoir Plate (1)

DETAILS

QuikPrep® SpinColumns™ with activated charcoal packing materials can be used for DNA, protein and peptide purification; small molecule, carbohydrate, salt and radiolabel removal; Nick translation; affinity separation and buffer exchange. Activated charcoal retains polar solutes. Salt will not be retained.

SPECIFICATIONS

Column Type	Sample Volume	Sample Capacity	Suggested Elution Volume	Included
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps
Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps

Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 96-well collection plates (1.1 ml per well)
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	Two 96-well collection plates (1.1 ml per well)

Cellulose and Detergent Removal SpinColumns

QuikPrepÂ® SpinColumnsâ„¢ with cellulose or detergent removal matrices for special uses.

Item No.	Description
74-7238	Ultra-Micro SpinColumns, Detergent Removal, Qty. of 24
74-7218	Ultra-Micro SpinColumns, Detergent Removal, Qty. of 96
74-4810	Micro SpinColumns, Detergent Removal, Qty. of 24
74-4804	Micro SpinColumns, Detergent Removal, Qty. of 96
74-4310	Macro SpinColumns, Detergent Removal, Qty. of 24
74-4304	Macro SpinColumns, Detergent Removal, Qty. of 96
74-5628	96-Well Micro SpinColumns, Detergent Removal, 1.1 ml Reservoir Plate (1)
74-5668	96-Well Macro SpinColumns, Detergent Removal, 1.1 ml Reservoir Plate (1)
74-4807	Micro SpinColumns, Cellulose, Qty. of 24
74-4801	Micro SpinColumns, Cellulose, Qty. of 96
74-4307	Macro SpinColumns, Cellulose, Qty. of 24

Item No.	Description
74-4301	Macro SpinColumns, Cellulose, Qty. of 96
74-5630	96-Well Micro SpinColumns, Cellulose, 1.1 ml Reservoir Plate (1)
74-5670	96-Well Macro SpinColumns, Cellulose, 1.1 ml Reservoir Plate (1)

DETAILS

QuikPrep® SpinColumns™ with cellulose or detergent removal matrices for special uses.

SPECIFICATIONS

Column Type	Sample Volume	Sample Capacity	Suggested Elution Volume	Included
Ultra-Micro	10 µl to 25 µl	3 to 30 µg	28.5 µl	Two 2 ml centrifuge tubes with top caps
Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 2 ml centrifuge tubes with top caps
Macro	75 µl to 150 µl	30 to 300 µg	143 µl	Two 2 ml centrifuge tubes with top and bottom caps
96-Well Micro	25 µl to 75 µl	5 to 60 µg	50 µl	Two 96-well collection plates (1.1 ml per well)
96-Well Macro	25 µl to 150 µl	30 to 300 µg	143 µl	Two 96-well collection plates (1.1 ml per well)

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