

Monoclonal Antibody & Reversed-phase HPLC

MonoSelect RP-mAb



- Intact mAb
- Protein Analysis
- Antibody-Drug Conjugate (ADC)
- Subunit

MonoSelect RP-mAb is ideal for monoclonal antibody analysis

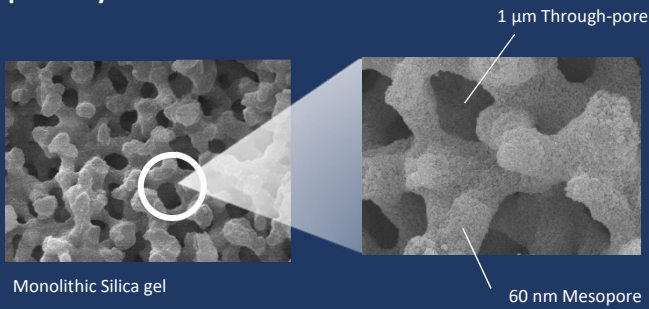
MonoSelect RP-mAb is a HPLC column Specialized for Monoclonal Antibody Analysis

- Applicability to Rapid Analysis Needed for Multisample Analysis
- Highly Sensitive Analysis Even with Low Concentration Samples
- Available for Subunit Analysis

Specifications

Support Material	: Highly pure monolithic silica
Through-pore Size	: 1 μm
Mesopore Size	: 60 nm
Max. Operating Temp.	: 80 °C

◎ Superiority of Monolithic Silica



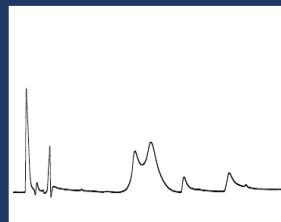
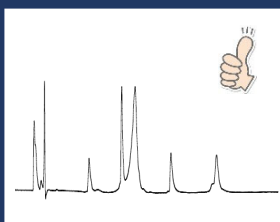
Monolithic silica consists of co-continuous through-pores and skeletons which have mesopores. The large surface area and high permeability of this structure enables “strong retentivity and low pressure”.

◎ 60 nm Pores for mAb Analysis

Representative chromatograms of protein analysis

MonoSelect RP-mAb

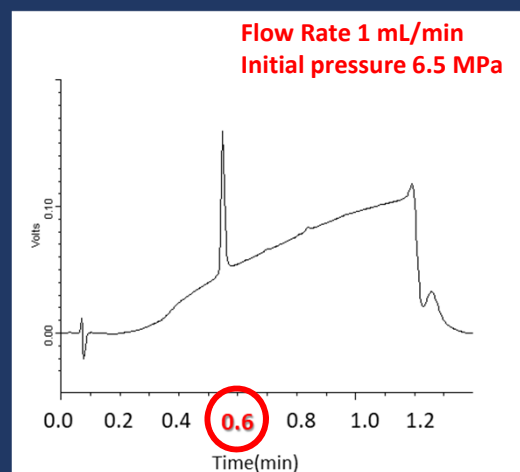
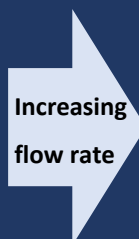
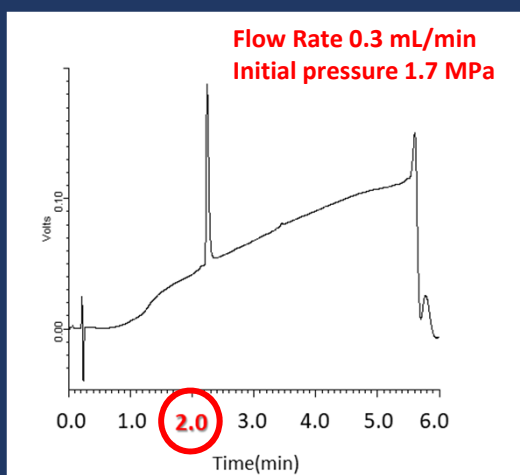
Silica Particles



Broad peaks are obtained with conventional HPLC columns when the analytes are huge proteins larger than 10 nm such as antibodies. “Sharp peaks of mAb” can be obtained with MonoSelect RP-mAb because the mesopores are designed to be 60 nm, which is suitable for mAb analysis.

Applicability to Rapid Analysis Needed for Multisample Analysis

Rapid analysis with a high flow rate is possible with MonoSelect RP-mAb because of “high permeability” of monolithic silica.



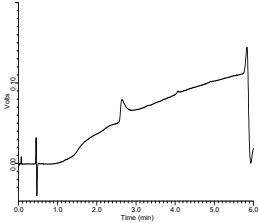
Highly Sensitive Analysis Even with Low Concentration Samples

Distorted peaks are often obtained in protein analysis especially with low concentration samples. 60 nm mesopores and the properly inertized surface yield sharp peaks even with low concentration samples.

Example of Low Concentration Analysis (1.4 mg/mL)

Analyte: Mab1 (Purified with MonoSpin ProA)

Waters Column (Silica Gel)



Peak Height

25136

Column Pressure

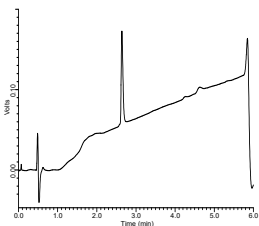
4.5 MPa

Not Good

Good

Low Pressure but bad peak shape

Agilent Column (Polymer)



113250

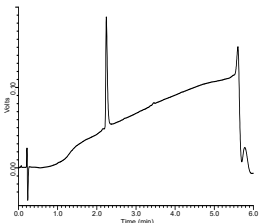
10.5 MPa

Good

Not Good

Good peak shape but high pressure (unavailable for rapid analysis)

MonoSelect RP-mAb



135451

1.7 MPa

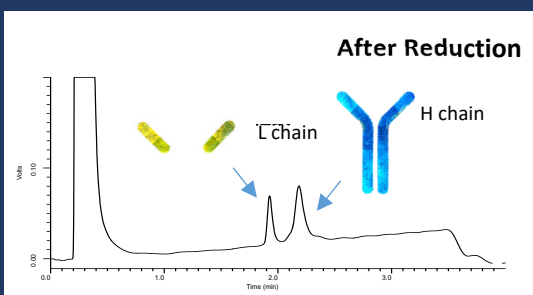
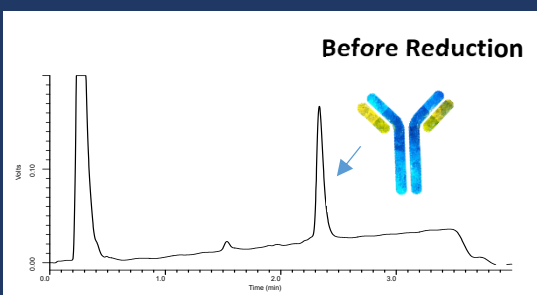


Good peak shape ⇒ Best choice for low concentration samples

Low Pressure ⇒ Available for rapid analysis

Available for Subunit Analysis

MonoSelect RP-mAb is also applicable to subunit analysis as well as analysis of unreduced antibodies.



Conditions

Eluent: A) 0.075 % HCOOH + 0.025 % CF₃COOH in H₂O
 B) 0.075 % HCOOH + 0.025 % CF₃COOH in CH₃CN
 A/B = 80/20-(5min)-40/60

Oven Temp.: 80 °C

MonoSelect RP-mAb

Specifications

Base Material	: Highly pure monolithic silica	Functional Group	: Phenyl Group	Column Configuration	: Cartridge Type
Through-pore size	: 1 µm	Carbon Loading	: 2.0 %	Max. Temp.	: 80 °C
Mesopore size	: 60 nm	I.D.	: 2.1 mm	Max. Pressure	: 40 MPa (400 bar)
Surface Area	: 50 m ² /g	Length	: 20 mm	pH Range	: 2 - 7.5

Description	Qty.	Cat.No.
MonoSelect RP-mAb Holder Set	1 set	5020-10818
MonoSelect RP-mAb Cartridge	1 pc	5020-10819
MonoSelect Cartridge Holder for 20 mm	1 pc	5020-10815

Note) End-fitting is UP (Parker type).

Related Products: MonoSpin ProA, ProG

The surface of monolithic silica functionalized with affinity ligands for antibody purification enables rapid purification.

Line up: Spin Column Type, 96 Well Plate Type



Features

- 2 types of antibody affinity ligands: Protein A & Protein G
- Reduced risks of denaturation of antibodies due to short exposure to acid during elution

Description		Qty.	Cat.No.
MonoSpin ProA Column Type	[keep cooling]	10 pcs	7510-11310
MonoSpin ProG Column Type	[keep cooling]	10 pcs	7510-11311
MonoSpin ProA 96 Well Plate type	[keep cooling]	1 pc	7510-11312
MonoSpin ProG 96 Well Plate type	[keep cooling]	1 pc	7510-11313
MonoSpin L ProA	[keep cooling]	4 pcs	7510-11314
MonoSpin L ProG	[keep cooling]	4 pcs	7510-11315
MonoSpin ProA/G Buffer Kit	[keep cooling]	-	7510-11316

Note 1) Each product includes chemicals for purification.

Note 2) GL-SPE mini vacuum manifolds are recommended for vacuum filtration of 96 well plates. Contact us for more details.

Note 3) L type products include a centrifuge adapter. Centrifuge tubes are not included.

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