

Zetadex

Gel Filtration Resin

For downstream purification
of proteins and nucleic acids



Higher Resolution
Narrower Band Widths
Cleaner Separations

Zetadex is a beaded composite material developed by **emp BIOTECH** and comprised of ultrapure cross-linked dextran. It exhibits high selectivity, superb resolution, low non-specific adsorption and robust chemical stability.

Molecules purified with **Zetadex** are separated according to size. Smaller molecules pass significantly slower through the column than larger molecules.

The molecular weight cut-off (MWCO) for **Zetadex-25** is 5 kD for proteins and 10 bases for nucleic acids. For **Zetadex-50**, the cut-offs are 25 kD and 20 bases.

Buffer and pH effects on resolution are minimal and purified biomolecules are not significantly diluted (1.5-fold) when processed using **Zetadex**.

Zetadex is autoclavable at 121°C, pH 7 for 30 minutes and is stable in all commonly used buffers, including: 0.2M NaOH; 0.2M HCl; 1M acetic acid; 8M urea; 6M guanidine HCl; 1% SOS, 24% Ethanol; 30% Propanol; and 30% Acetonitrile.



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Grade		Zetadex-25	Zetadex-50
Super Fine	Dry Bead Size:	20 – 50 µm (>80%)	20 – 50 µm (>80%)
	Water Regain:	2,15 – 2,25 mL/g	4.80 – 5.20 mL/g
	Swelling:	4 – 6 mL/g	9 – 11 mL/g
	MWCO (size exclusion):	below 5000 Da	below 25000 Da
	Fractionation Range:	1 – 5 kDa (globular proteins)	1 – 30 kDa (globular proteins)
	pH Stability:	2.0 to 13.0	2.0 to 13.0
	Catalog No.:	TM-0101	TM-0104
Fine	Dry Bead Size:	20 – 80 µm (>80%)	20 – 80 µm (>80%)
	Water Regain:	2,15 – 2,25 mL/g	4.80 – 5.20 mL/g
	Swelling:	4 – 6 mL/g	9 – 11 mL/g
	MWCO (size exclusion):	below 5000 Da	below 25000 Da
	Fractionation Range:	1 – 5 kDa (globular proteins)	1 – 30 kDa (globular proteins)
	pH Stability:	2.0 to 13.0	2.0 to 13.0
	Catalog No.:	TM-0102	TM-0105
Medium	Dry Bead Size:	50 – 150 µm (>80%)	50 – 150 µm (>80%)
	Water Regain:	2,15 – 2,25 mL/g	4.80 – 5.20 mL/g
	Swelling:	4 – 6 mL/g	9 – 11 mL/g
	MWCO (size exclusion):	below 5000 Da	below 25000 Da
	Fractionation Range:	1 – 5 kDa (globular proteins)	1 – 30 kDa (globular proteins)
	pH Stability:	2.0 to 13.0	2.0 to 13.0
	Catalog No.:	TM-0103	TM-0106
Coarse	Dry Bead Size:	100 – 300 µm (>80%)	100 – 300 µm (>80%)
	Water Regain:	2,15 – 2,25 mL/g	4.80 – 5.20 mL/g
	Swelling:	4 – 6 mL/g	9 – 11 mL/g
	MWCO (size exclusion):	below 5000 Da	below 25000 Da
	Fractionation Range:	1 – 5 kDa (globular proteins)	1 – 30 kDa (globular proteins)
	pH Stability:	2.0 to 13.0	2.0 to 13.0
	Catalog No.:	TM-0112	TM-0113
Agglutination Grade (Gel Card)	Dry Bead Size:	Not applicable	20 – 50 µm (>93%)
	Water Regain:		4.80 – 5.20 mL/g
	Swelling:		9 – 11 mL/g
	Catalog No.:		TM-0111
Pre-hydrated and Ready-to-use		Zetadex-25 Medium	Zetadex-50 Fine
	Hydration Buffer:	Hydrated in phosphate buffered saline; pH 7.4, with 0.02% NaN ³	Hydrated in phosphate buffered saline; pH 7.4, with 0.02% NaN ³
	Catalog No.:	TM-0107	TM-0108
	Hydration Buffer:	Hydrated in deionized water with 0.15% ProCline	Hydrated in deionized water with 0.15% ProCline
	Catalog No.:	TM-0114	TM-0115

Zetadex Antibody Purification

Using Zetadex-25 Medium Gel Filtration Resin

Sample: Mouse IgG in PBS

Column: Zetadex-25 M in BPG
300/500

Conc.: 12.5 mg/mL

Diameter: 30 cm

Volume: 4500 mL

Gel Volume: 25 Liters

Total IgG: 56.25 grams

Pressure: 1.0 bar (0.1 mPa or 13 psi)

Buffer: 100 mM Glycine-HCl,
pH 2.0 neutralised with 1 M
Tris-HCl pH 8.0

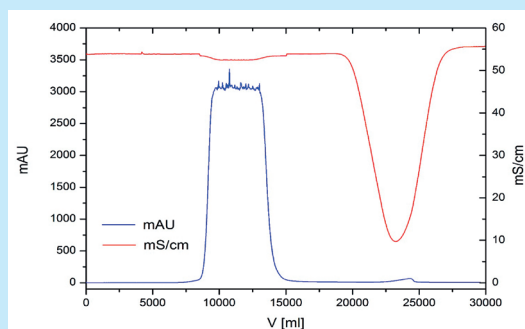
System: ÄktaPilot
(GE Healthcare)

**Flow rate during
sample loading:** 400 mL

**Flow rate during equilibration
and elution:** 500 mL

Total run time: 63 min

High Performance Results:



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