TOYOPEARL GigaCap® DEAE-650M

for high capacity Anion Exchange Chromatography of small and large proteins

TOYOPEARL PRODUCT OVERVIEW

Introduction

TOYOPEARL GigaCap DEAE-650M is a very high capacity anion exchange resin for process scale applications. TOYOPEARL® HW-65 is the polymeric base bead chemically modified to provide a greater number of anionic binding sites, resulting in increased binding capacity. TOYOPEARL GigaCap DEAE-650M exhibits typical dynamic binding capacities (DBC) approaching 170 g/L for bovine serum albumin (BSA).

TOYOPEARL GigaCap DEAE-650M maintains high capacity across a range of linear velocities, exhibits excellent pressure-flow characteristics and the resin's 50-100 μ m particles are stable to pressures of up to 0.3 MPa.

STRUCTURE:

(HW-65)-O-R'-CH₂-CH₂-HN⁺-(C₂H₅)₂ weak anion exchanger

(Note: R'= proprietary)

Product Attributes

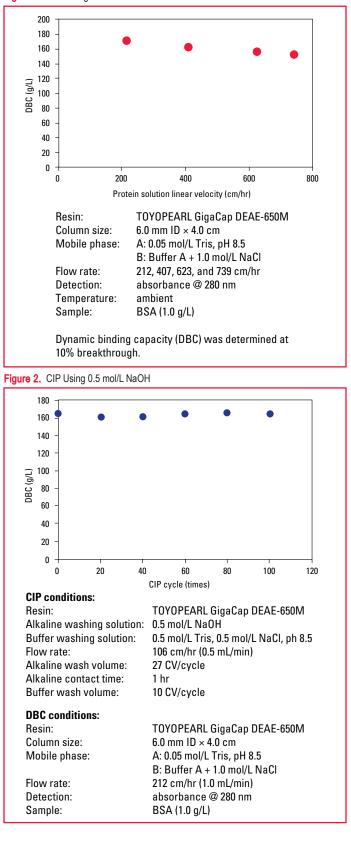
Pore size (mean):	100 nm
Particle size (mean):	75 µm
Pressure rating:	0.3 MPa
Shipping buffer:	20% ethanol
pH stability:	2-13
Shelf life (estimated):	10 years

Good mass transfer kinetics enable the resin to maintain DBC at faster linear velocities *(Figure 1)*. This fast uptake ability, when coupled with the narrow elution peak typical of TOYOPEARL GigaCap resins, results in smaller and more concentrated in-process pool volumes, thus reducing the amount of water for injection needed and increasing process throughput downstream.

TOYOPEARL GigaCap DEAE-650M is base stable for at least 100 clean in place (CIP) cycles with 0.5 mol/L NaOH, making multiple uses of the resin possible (*Figure 2*).



Figure 1. DBC at higher linear velocities



Ordering Information

Part#	Description	Volume
22865	TOYOPEARL GigaCap DEAE-650M, 75 μm	100 mL
22866	TOYOPEARL GigaCap DEAE-650M, 75 μm	250 mL
22867	TOYOPEARL GigaCap DEAE-650M, 75 μm	1 L
22868	TOYOPEARL GigaCap DEAE-650M, 75 µm	5 L
22869	TOYOPEARL GigaCap DEAE-650M, 75 μm	50 L
22872	ToyoScreen GigaCap DEAE-650M	1 mL × 6
22873	ToyoScreen GigaCap DEAE-650M	5 mL × 6

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