

TOYOPEARL GigaCap® Q-650S

High Capacity/High Resolution Anion Exchange Resin for Oligonucleotides and Proteins

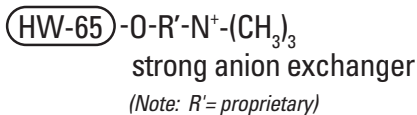
TOYOPEARL PRODUCT OVERVIEW

Introduction

Tosoh Bioscience has fused high binding capacity with high resolution to bring you TOYOPEARL GigaCap Q-650S anion exchange resin. This resin is ideal for process scale applications from the capture of oligonucleotides to the polishing of monoclonal antibodies. A TOYOPEARL® HW-65 polymeric bead has been chemically modified to provide a greater number of anionic binding sites, resulting in increased binding capacity. This capacity, combined with a 35 µm mean particle size, makes TOYOPEARL GigaCap Q-650S ideal for high resolution applications.

TOYOPEARL GigaCap Q-650S maintains high capacity (dynamic binding capacities approaching 190 g/L for bovine serum albumin) across a range of linear velocities, exhibits excellent pressure-flow characteristics (Figure 1) and the 20-50 µm particle size is stable up to 0.3 MPa.

STRUCTURE:



Product Attributes

Pore size (mean):	100 nm
Particle size (mean):	35 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 its dynamic binding capacity (DBC) at higher linear velocities (Figure 2). 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 Q-650S is base stable for a minimum of 100 Clean in Place (CIP) cycles with 0.5 mol/L NaOH, making multiple uses of the resin possible (Figure 3).

Figure 1. Flow rate vs. pressure drop

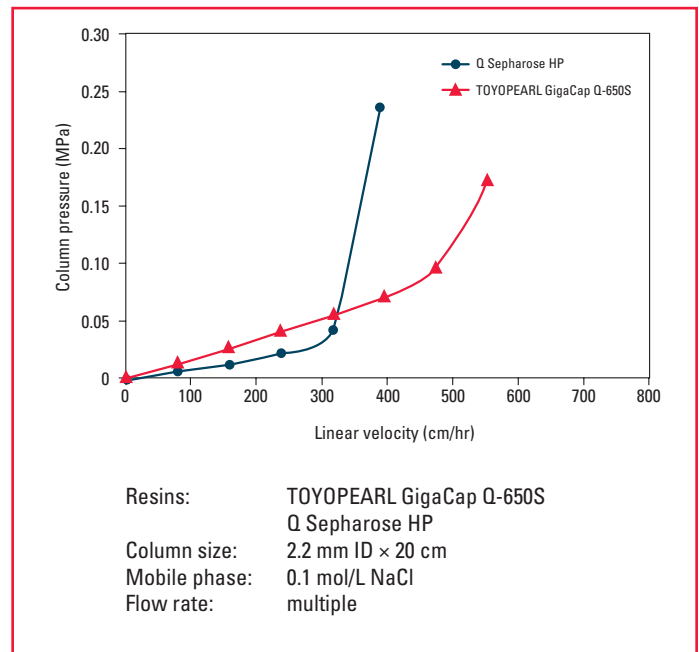


Figure 2. DBC at higher linear velocities

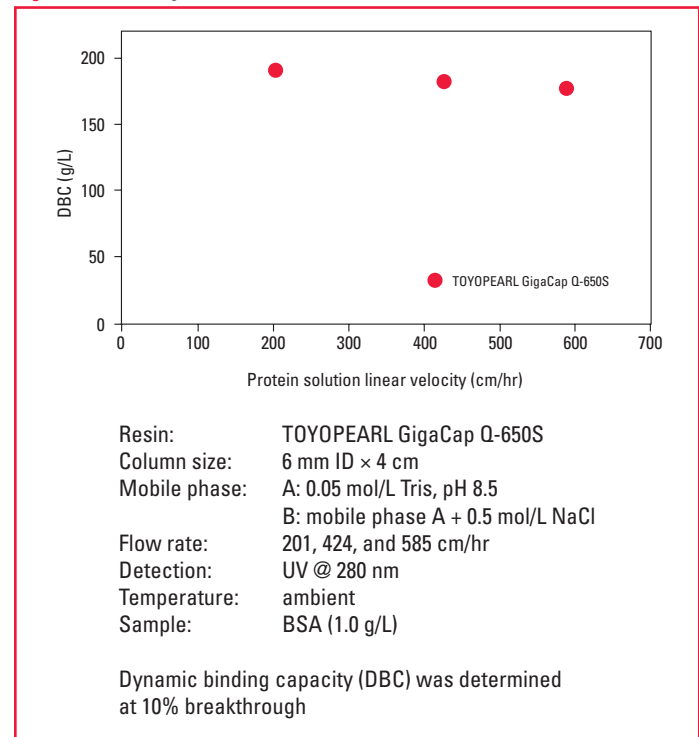
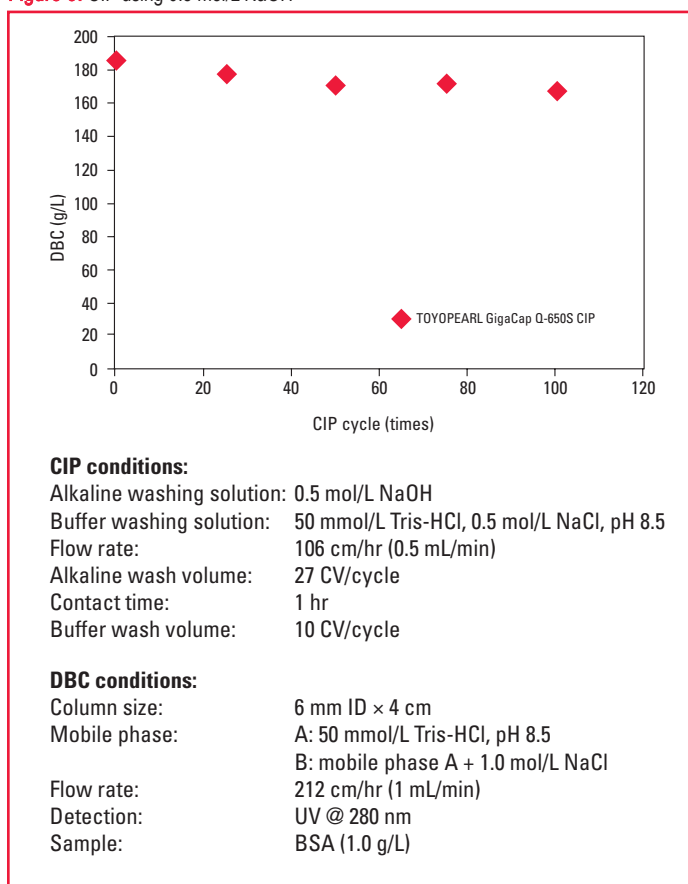


Figure 3. CIP using 0.5 mol/L NaOH



Ordering Information

Part#	Description	Resin Volume
22881	TOYOPEARL GigaCap Q-650S, 35 µm	25 mL
22882	TOYOPEARL GigaCap Q-650S, 35 µm	250 mL
22883	TOYOPEARL GigaCap Q-650S, 35 µm	1 L
22884	TOYOPEARL GigaCap Q-650S, 35 µm	5 L
22885	TOYOPEARL GigaCap Q-650S, 35 µm	50 L

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