

Toyopearl GigaCap Q-650M

for high capacity Anion Exchange Chromatography of small and large proteins

TOYOPEARL
PRODUCT OVERVIEW

Introduction

Toyopearl GigaCap Q-650M is the second in a family of ion exchange products optimized for high capacity high throughput chromatography (for packed bed chromatography). Its base bead is Toyopearl HW-65 which has a particle size range of 50-100 μ m. This particle size range has outstanding pressure flow characteristics for both capture and intermediate purification steps.

Its high capacity for BSA and Thyroglobulin shows that it will be an excellent resin to screen for both small and larger proteins.

Because proteins have different charge distributions, it is suggested that screening of loading conditions be done over multiple pH units appropriate for the protein's pI, as well as a range of conductivities from low to high.

Product Highlights

High Dynamic Binding Capacity *Figure 1*

- Typical dynamic capacities of 175mg BSA/mL resin (at 212cm/hr) with high 98-99% recoveries
- Typical dynamic binding capacities of 49mg thyroglobulin/mL resin

Excellent Pressure Flow Characteristics *Figure 2*

- Maximum back pressure tolerance rating of 3 bar
- Can be used at high linear velocities

Optimized particle size for improved fluid dynamics over agarose materials

- Narrow particle size range of 50-100 μ m
- Benefits over resins with a particle size distribution of 45-165 μ m:
 - Higher target elution concentrations, less water to remove
 - Enhanced chromatographic resolution for improved target purities
 - Reduced elution volume *Figure 3*

Figure 1. High Dynamic Binding Capacity

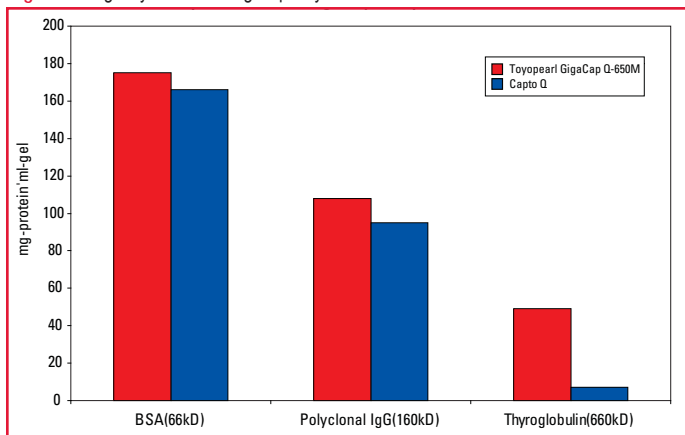


Figure 2. Excellent Pressure Flow Characteristics

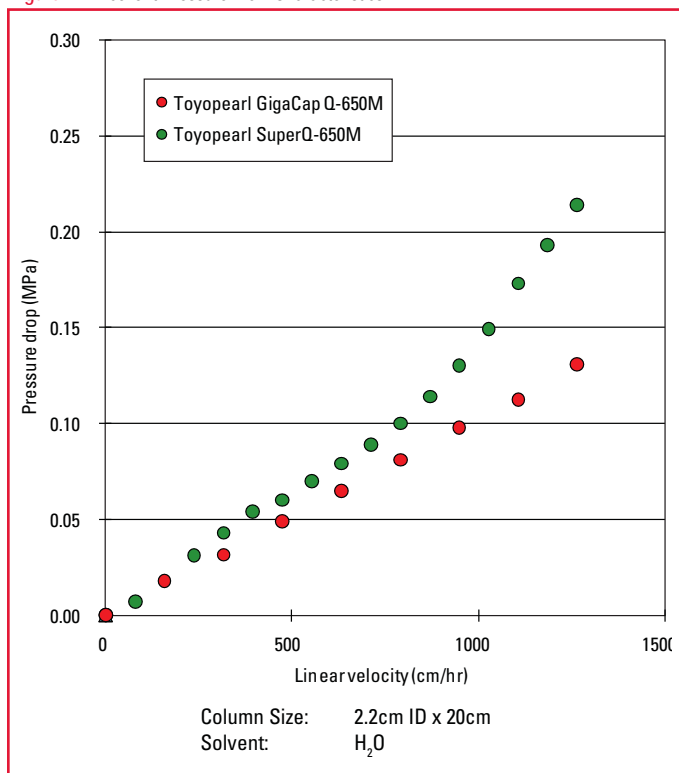
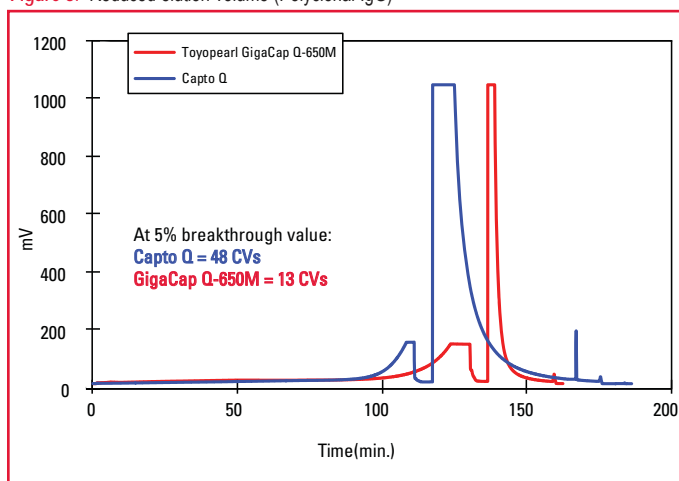


Figure 3. Reduced elution volume (Polyclonal IgG)



Capto Q is a trademark of GE Healthcare Bio-Sciences.

Ordering Information

Part #	Description	Resin Vol.
21854	Toyopearl GigaCap Q-650M	100mL
21855	Toyopearl GigaCap Q-650M	250mL
21856	Toyopearl GigaCap Q-650M	1L
21857	Toyopearl GigaCap Q-650M	5L
21858	Toyopearl GigaCap Q-650M	50L
21859	ToyoScreen GigaCap Q-650M	1mL x 6
21860	ToyoScreen GigaCap Q-650M	5mL x 6



TOSOH

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