

# Toyopearl® Super Butyl-550C

for Hydrophobic Interaction Chromatography  
of Proteins and Peptides

TOYOPEARL  
PRODUCT OVERVIEW

## Introduction

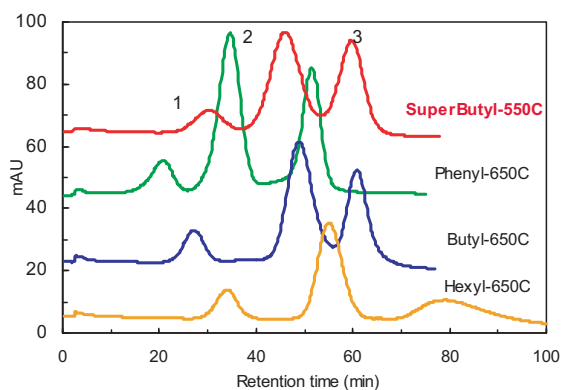
Toyopearl Super Butyl-550 (500Å) is a smaller pore size version of Tosoh Bioscience's popular hydrophobic interaction resin Toyopearl Butyl-650 (1,000Å) product. Its backbone is the same high performance hydroxylated methacrylic polymer used for all Toyopearl. The smaller pore diameter creates higher surface area than our standard Toyopearl Butyl-650 and more binding capacity for accessible proteins.

Toyopearl Super Butyl-550 has similar selectivity and hydrophobicity to Toyopearl Butyl-650. The difference in pore sizes now adds a second degree of freedom to the Butyl line for doing "flow-through" or "negative" chromatography. In "flow-through" chromatography, the pore size chosen selectively excludes the larger targets of interest away from the included smaller impurities.

## Product Highlights

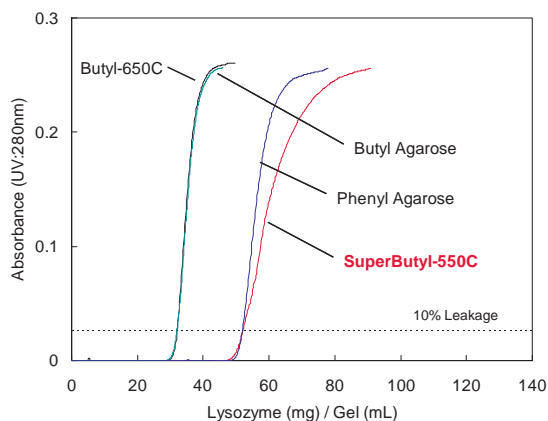
- Up to 60% higher dynamic binding capacity than Toyopearl Butyl-650C
- Higher throughput possibilities for existing Toyopearl Butyl-650 processes
- Low non-specific binding
- Higher recovery than agarose materials for molecules like BSA

### Protein selectivity comparison



Column Size : 7.5mm I.D. x 7.5cm  
Eluent : (A) 0.1 M phosphate buffer containing 1.8 M ammonium sulfate (pH 7.0)  
(B) 0.1 M phosphate buffer (pH 7.0)  
Linear Gradient (A) to (B) 60 min  
Flow Rate : 1mL/min (136cm/h)  
Detection : UV (280nm)  
Sample : 1. Ribonuclease A 2. Lysozyme  
3. a-Chymotrypsinogen A (1mg/mL each)  
Injection Volume : 100µL

### Dynamic binding capacity



Column Size : 10.6 mm I.D. x 20 cm  
Feeding Solution: Lysozyme (1mg/mL) in 0.1M phosphate buffer containing 1.8M ammonium sulfate (pH 7.0)  
Linear Velocity: 300cm/hr  
Detection: UV (280nm)

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## Specifications

<b>Particle Size Distribution</b>	Min. 80% (50 - 150µm)
<b>Pressure Drop</b>	Max 15kPa (at 4.00mL/min)
<b>Protein Adsorption Capacity</b>	52 - 70g/L (of Lysozyme)
<b>Protein Elution Volume Lysozyme α-Chymotrypsinogen</b>	43 - 53mL 57 - 65mL
<b>Bacterial Count</b>	Max 100 CFU/mL
<b>Endotoxin Concentration</b>	Max 10.0 EU/mL
<b>Eluable Matter</b>	Max. 0.2% (for dry gel)
<b>Foreign Substance (Colored Particle)</b>	unobserved

## Ordering Information

Part #	Description	Resin Vol.
19955	<b>Toyopearl Super Butyl-550C</b>	25 mL
19956	<b>Toyopearl Super Butyl-550C</b>	100 mL
19957	<b>Toyopearl Super Butyl-550C</b>	1L
19958	<b>Toyopearl Super Butyl-550C</b>	5L
19959	<b>Toyopearl Super Butyl-550C</b>	50L



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## TOSOH BIOSCIENCE

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