

# Toyopearl® Phenyl-600M

For high capacity Hydrophobic Interaction Chromatography and high recovery of large and small proteins

TOYOPEARL  
PRODUCT OVERVIEW

## Product Highlights

### Optimized pore size and ligand functionalization for Abs. (Table 1)

- Typical dynamic binding capacity (DBC) of 40g Ab/L-gel
- 750Å mean pore size of base bead (Toyopearl HW-60)
- Fast mass transfer (Figure 1)

### High Ab recoveries:

- Greater than 90%

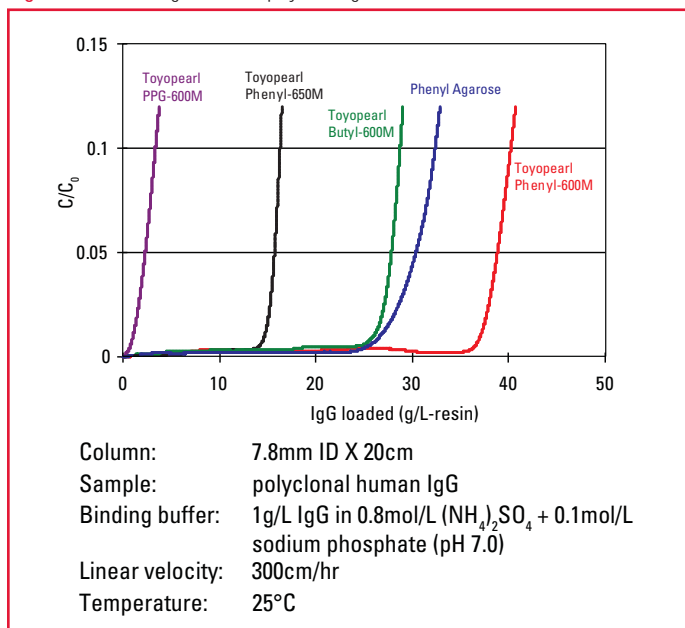
### High DBC for small proteins:

- Typical DBC 58g lysozyme/L-gel
- Fast mass transfer (Figure 2)

Table 1. Comparison of Dynamic Binding Capacity (DBC) 300 cm/hr

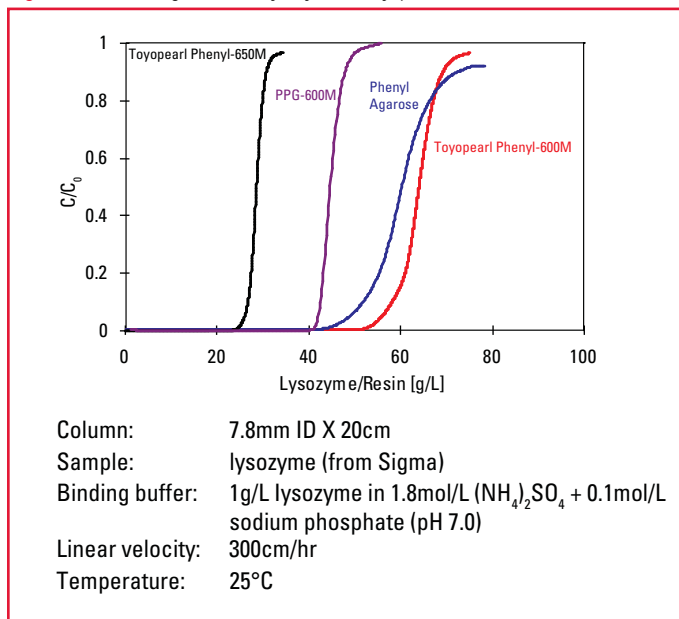
	Polyclonal IgG		Lysozyme
	DBC (g/L)	Recovery %	DBC (g/L)
<b>Toyopearl Phenyl-600M</b>	40	91	58
<b>Phenyl-Agarose</b>	32	87	52
<b>Toyopearl Butyl-600M</b>	29	87	ND
<b>Toyopearl Phenyl-650M</b>	16	95	27
<b>Toyopearl PPG-600M</b>	3	ND	43

Figure 1. Breakthrough curves of polyclonal IgG on various HIC resins



Phenyl-Agarose is a trademark of GE Healthcare

Figure 2. Breakthrough curves of lysozyme on Toyopearl HIC resins

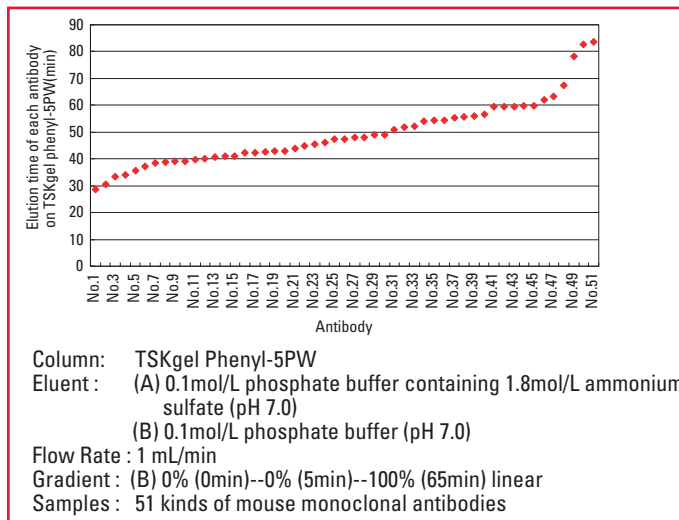


Toyopearl Phenyl-600M is the third product in our Toyopearl "600M" series of resins optimized for mAbs. It complements Toyopearl PPG-600M and Butyl-600M. The order of hydrophobicities for the three ligands from lowest to highest is:

PPG < Phenyl < Butyl

Because mAbs can vary greatly in their hydrophobicities (Figure 3) having a diverse selection of ligands available can greatly benefit the development process. It is suggested that all three resins be screened when developing a mAb purification.

Figure 3. Hydrophobic diversity of mouse monoclonals



## Ordering Information

Part #	Description	Resin Vol.
21887	<b>Toyopearl Phenyl-600M 40-90<math>\mu</math>m</b>	25mL
21888	<b>Toyopearl Phenyl-600M 40-90<math>\mu</math>m</b>	100mL
21889	<b>Toyopearl Phenyl-600M 40-90<math>\mu</math>m</b>	1L
21890	<b>Toyopearl Phenyl-600M 40-90<math>\mu</math>m</b>	5L
21891	<b>Toyopearl Phenyl-600M 40-90<math>\mu</math>m</b>	50L
21892	<b>ToyoScreen Phenyl-600M 40-90<math>\mu</math>m</b>	1mL X 6 ea.
21893	<b>ToyoScreen Phenyl-600M 40-90<math>\mu</math>m</b>	5mL X 6 ea.



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## TOSOH BIOSCIENCE

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