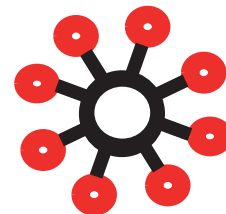
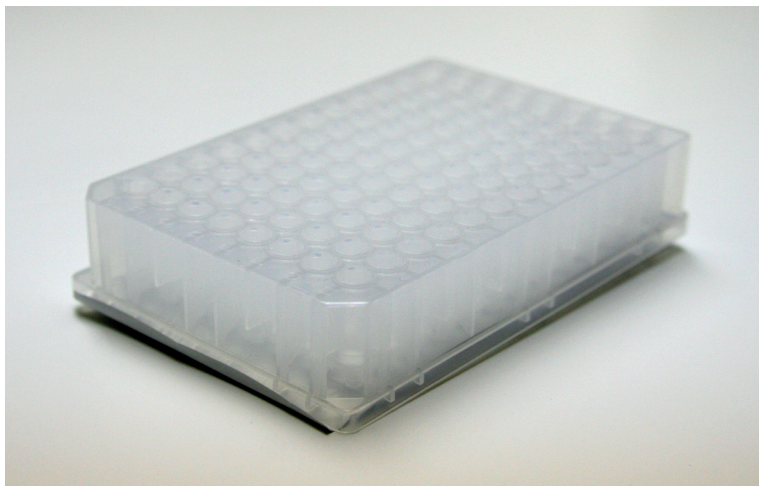


Resin Seeker HIC 96-well Plate Kit

P/N OC41MDHIC-96



A method development kit for Hydrophobic Interaction Chromatography (HIC)



	1	2	3	4	5	6	7	8	9	10	11	12
A	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
B	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple
C	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
D	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
E	Cyan	Cyan	Cyan	Cyan	Cyan	Cyan	Cyan	Cyan	Cyan	Cyan	Cyan	Cyan
F	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue
G	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
H	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black

20 μ L resin volumes

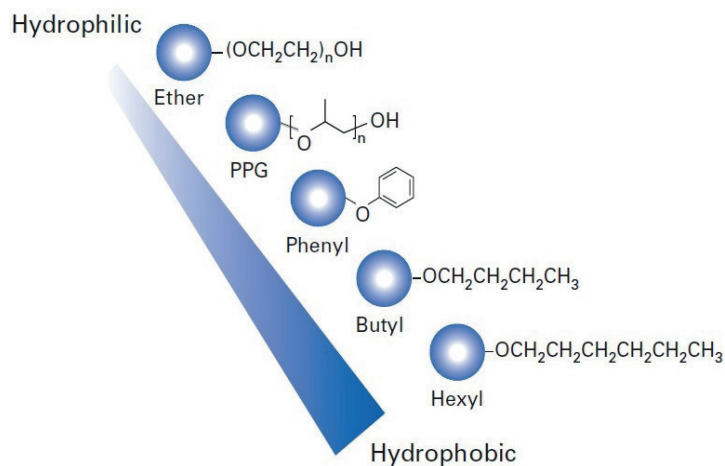
Each kit includes both
a collection and a wash plate.

Resins used:

Decreasing Hydrophobicity ↓

Red	TOYOPEARL® Hexyl-650C
Purple	TOYOPEARL Butyl-650M
Yellow	TOYOPEARL Butyl-600M
Green	TOYOPEARL SuperButyl-550C
Cyan	TOYOPEARL Phenyl-650M
Dark Blue	TOYOPEARL Phenyl-600M
Orange	TOYOPEARL PPG-600M
Black	TOYOPEARL Ether-650M

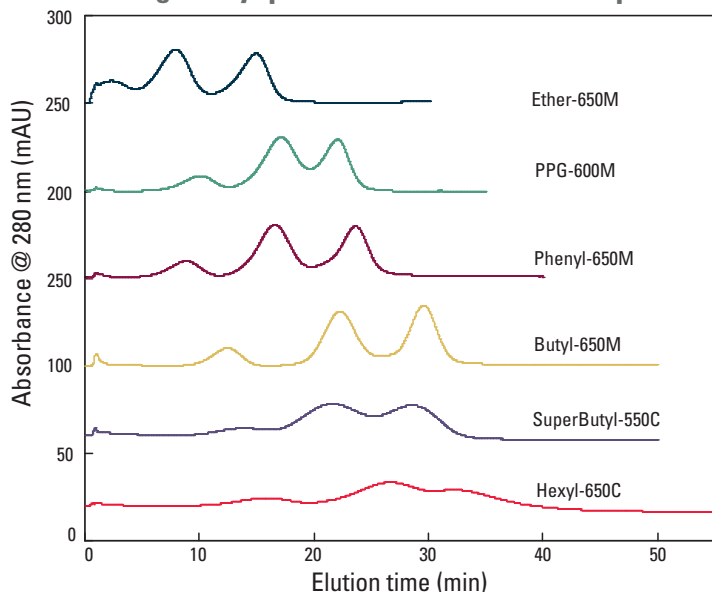
Toyopearl HIC ligand candidates



Resin Physical Properties Comparison

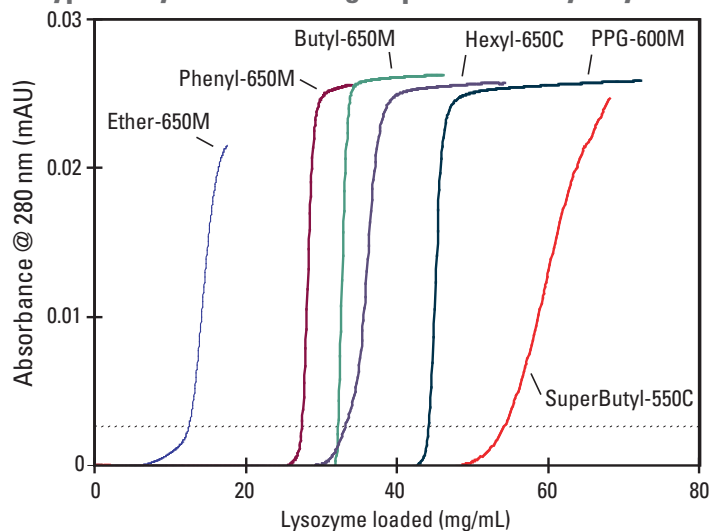
HIC resin	Base bead	Pore size (Å)	Particle size (µm)	DBC (lysozyme) (mg/mL-resin)
Toyopearl Hexyl-650C	HW-65	1,000	100	30-50
Toyopearl Butyl-650M	HW-65	1,000	65	30-50
Toyopearl Butyl-600M	HW-60	750	65	40-60 (g/L γ -globulin)
Toyopearl SuperButyl-550C	HW-55	500	100	52-70
Toyopearl Phenyl-650M	HW-65	1,000	65	30-50
Toyopearl Phenyl-600M	HW-60	750	65	45-65
Toyopearl PPG-600M	HW-60	750	65	45-55
Toyopearl Ether-650M	HW-65	1,000	65	10-30

Screening of Toyopearl HIC resins - standard proteins



Resins: as indicated in figure
 Column size: ToyoScreen (1 mL), 6.4 mm ID x 3.0 cm
 Mobile phase: Buffer A: 0.1 mol/L phosphate buffer + 1.8 mol/L sodium sulfate, pH 7.0
 Buffer B: 0.1 mol/L phosphate buffer, pH 7.0
 Gradient: 30 min linear gradient from A to B
 Flow rate: 16 cm/hr (1 mL/min)
 Detection: UV @ 280 nm
 Samples: ribonuclease A, lysozyme, α -chymotrypsinogen, 1 mg/mL
 Sample vol.: 50 μ L

Typical Dynamic Binding Capacities for lysozyme



Resin	Binding capacity (mg/mL) (10% breakthrough)
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Ether-650M	12.5
Phenyl-650M	27.5
Butyl-650M	32.2
Hexyl-650C	33.2
PPG-600M	44.2
SuperButyl-550C	54.3

Column size: 7.8 mm ID x 20 cm
 Mobile phase: 1.8 mol/L sodium sulfate + 0.1 mol/L phosphate, pH 7.0
 Flow rate: 100 cm/hr (0.8 mL/min)
 Detection: UV @ 280 nm
 Temperature: ambient
 Sample: 1 mg/mL lysozyme
 Sample vol.: as indicated in figure