

## MabSpeed™

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#### Spherical and monodisperse particles:

- Easy to pack
- High packing reproducibility
- Low pressure drop

#### Extremely high bed height available: > 50 cm

- Compatible with simple structured columns
- Enables equipment cost reduction

#### High flow rate available: > 600 cm/h

- Improves throughput
- Shortens process time suitable for higher efficacy of purified therapeutic mAb

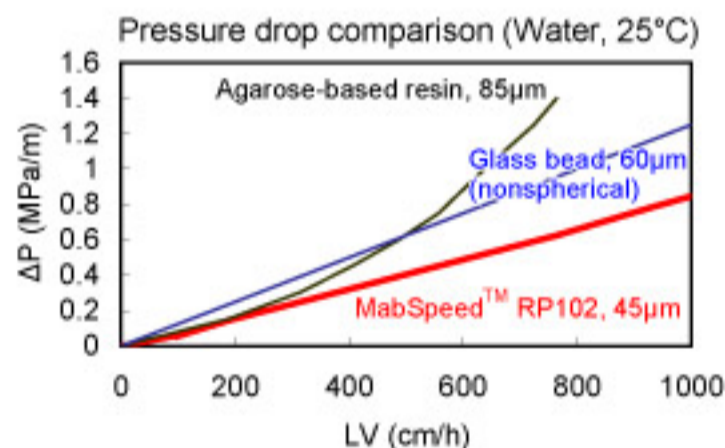
#### Rigid and durable matrix:

- Non compressive bed

#### Variation in particle size:

- Standard particle size: 45µm

#### Hydraulic properties of MabSpeed™



MCC 45µm data was calculated from the data measured for 60µm.

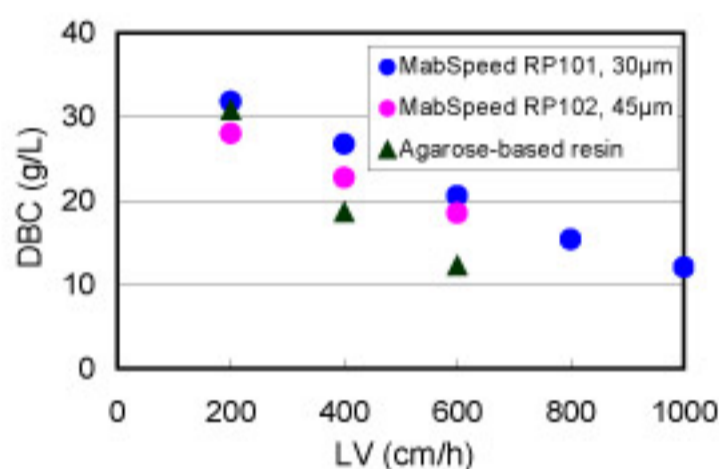
#### Cleaning in place – Low effect on Ligand leakage and Dynamic binding capacity

Ligand leakage	
cycles	ng PrA / mg IgG
1	0.53
20	0.23
40	0.24
60	0.25
80	0.26
100	0.25

#### Characteristics of MabSpeed™

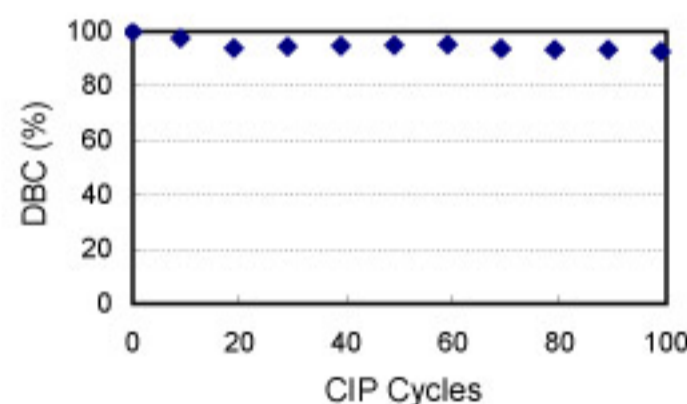
Product	MabSpeed™ RP102
Matrix	Crosslinked polymethacrylate
Ligand	recombinant Protein A
IgG-SBC	> 30 g/L
Particle size	45µm

#### Dynamic binding capacity comparison



#### Conditions:

Column, 127 x 5 mm I.D.;  
 Sample, 1.0 mg/mL human  $\gamma$ -globulin;  
 Buffer, PBS (pH 7.4); Temp., 20°C.  
 The DBC was determined at 10% breakthrough.



#### Conditions:

Column, 50 x 5 mm I.D.;  
 DBC of human  $\gamma$ -globulin was determined at 10% breakthrough.  
 Binding, Phosphate buffered saline (pH7.4);  
 Elution, 0.1M Sodium citrate (pH3.0);  
 CIP, 0.1M NaOH; Contact time, 15 min.