MCI GEL™ CHP20/P20 and CHP50/P20

MCI GEL™ CHP20/P20 and CHP50/P20 is based on a unique 20µm rigid polystyrene/divinylbenzene matrix. A controlled pore size distribution and large surface area offer excellent resolution and the capacity for a wide range of molecules, from small peptides and oligonucleotides up to large proteins. Following tables and pages include specification and supporting data.

CHP20/P20 and CHP50/P20 are characterized by:

>> Wide pH operation range
>> Excellent batch-to-batch reproducibly
>> Wide application
>> High chemical stability
>> Excellent pressure/flow characteristics

Physical and chemical properties

Grade name		MCI GEL™ CHP20/P20	MCI GEL™ CHP50/P20
Bead form		Rigid, spherical, porous	Rigid, spherical, porous
Matrix		Polystyrene/divinylbenzene	Polystyrene/divinylbenzene
Recommended pH		All range (1 to 14)	All range (1 to 14)
Mode Diameter	µm	15.0-20.0	15.0-20.0
Within Mode Diameter	± 2.5µm	40% min	40% min
Within Mode Diameter	± 5.0µm	70% min	70% min
Moisture Content	%	70.0—90.0	60.0-80.0
Particle Size Distribution	vol %	report	report
Apparent Density*	g/l-R	report	report
Specific Surface Area*	m^2/g	571	580
Specific Pore Volume*	ml/g	1.79	1.47
Pore Radius*	Å	231	140

Note: properties with a mark "*" are referential data .

MCI GEL™ CHP20/P20 and CHP50/P20

>> Wide pH stability

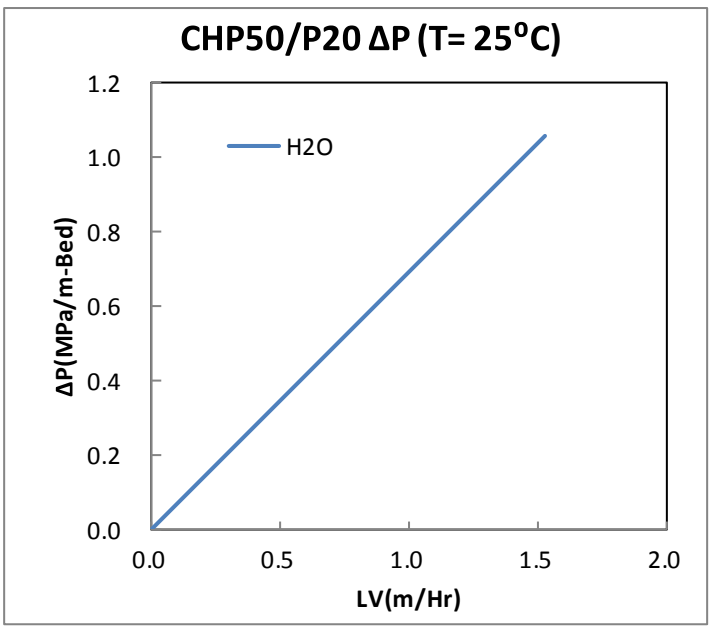
The polystyrene/divinylbenzene matrix provides MCIGEL™ CHP20/P20 and CHP50/P20 with chemical stability over a wide pH range. With both an operating and a cleaning ranges cover all pH 1 to 14, both products has broad flexibility in the choice for running conditions and cleaning procedures.

>> Batch-to-batch reproducibility

The combination of a unique manufacturing process and high quality assurance standards results in reproducible bath-to-batch quality. The process gives consistent pore and bead structure, both within and between batches under a strict quality control. All manufacturing is regulated under ISO9001.

>> Excellent pressure/ flow characteristics

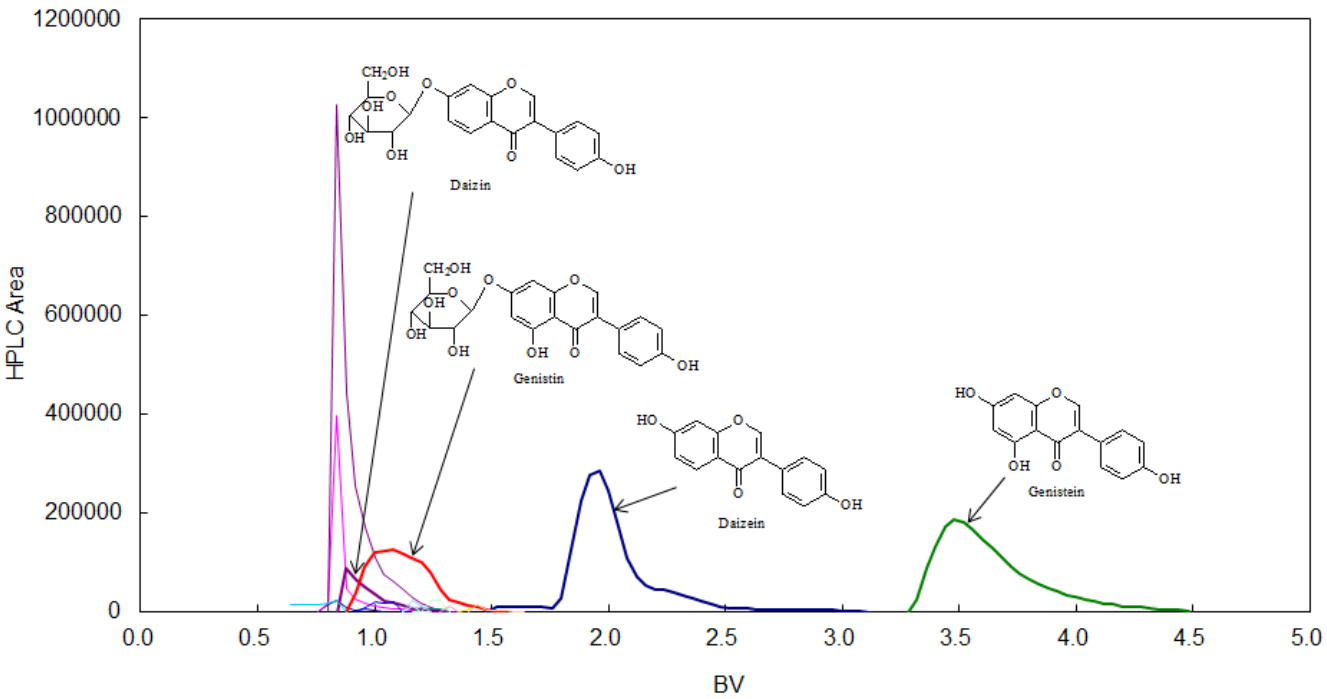
CHP20/P20 and CHP50/P20 is composed of 20µm diameter beads, spherical in shape and free from broken beads, fragments, and fines. This results in stable and densely packed beds with excellent hydraulic properties shown in the graphs below.



MCI GEL™ CHP20/P20 and CHP50/P20

>> Wide application

example: Preparative chromatographic separation of soybean crude extract



Conditions:
Adsorbent, CHP50/P20; Column size, 465mm x 32mm I.D.;
Eluent, MeOH/0.1M ammonium acetate=80/20; Flow rate, 7.48ml/min.
Sample: Soybean crude extract. Injection: 37.4ml (0.1BV).

Preparative chromatographic fractions were analyzed by analytical HPLC and elution profile of each compound was determined as above.

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