

# Product information

## Produktinformation

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## 1.16197 Fractogel<sup>®</sup> EMD Phenyl I (S)

### Hydrophobic interaction chromatography (HIC)

Fractogel<sup>®</sup> EMD Phenyl is a cross-linked polymethacrylate resin for hydrophobic interaction chromatography modified according to the tentacle technology. The beads have a high mechanical and chemical stability. Fractogel<sup>®</sup> EMD hydrophobic media are functionalised on the surface with hydrophobic groups which are bonded via linear polymer chains. These enable the hydrophobic groups to adapt a configuration that is optimal for their interaction with the analyte.

Fractogel<sup>®</sup> EMD Phenyl I is a strong hydrophobic chromatography support for purification of proteins and antibodies.

The binding of the proteins is performed at high salt concentrations. Buffers commonly used contain  $(\text{NH}_4)_2\text{SO}_4$ ,  $\text{Na}_2\text{SO}_4$ ,  $\text{K}_2\text{SO}_4$  or  $\text{Na}_2\text{HPO}_4$ .

The strength of the binding depends on:

- concentration of the salt
- salting out properties of the salt with respect to individual proteins
- pH value of the buffer which affects the solubility of many proteins
- temperature (increasing temperature results in stronger hydrophobic interactions → stronger binding)

### Properties of the strong tentacle hydrophobic interaction sorbent

Cat. No.	1.16197
Bulk material	100 ml, 500 ml (larger quantities on request)
Particle size	20 – 40 µm
Type of chromatography	Strong hydrophobic interaction chromatography
Functional group	Phenyl
Ligand density	20 – 40 µmol/ml
Protein binding capacity	about 20 mg ovalbumin/ml of gel
pH stability range	pH 2 up to pH 12
Elution conditions	Decrease of salt concentration
Pressure limit	20 bar
Operating temperature	4 °C to room temperature
Storage, preservative	20 % ethanol
Regeneration	20 % 2-propanol, 50 % ethylene glycol, urea
Sanitization	0.1 – 0.5 M NaOH
Linear flow rate	Up to 300 cm/h