

MCI GEL™ CQH series packed columns are for hydrophobic chromatography mode. Functional groups of the packing materials are butyl, phenyl and ether.

The relative hydrophobicity of the CQH series columns decrease in the following order. CQH3PS > CQH3BS > CQH3ES.

Chromatography column and material list

● CQH_S series

MCI GEL™ CQH_S series are for analytical chromatography columns and materials for separating biomolecules in the basis of difference of their hydrophobic properties. Average particle size is 10 μm.

<Column list>

Column name	Column dimensions	Particle size [μm]	Functional group
MCI GEL™ CQH3BS	7.5mm I.D.×75mm	10	Butyl
MCI GEL™ CQH3ES	7.5mm I.D.×75mm	10	Ether
MCI GEL™ CQH3PS	7.5mm I.D.×75mm	10	Phenyl

<Packing material list>

Material name	Particle size [μm]	Functional group
MCI GEL™ CQH3BS	10	Butyl
MCI GEL™ CQH3ES	10	Ether
MCI GEL™ CQH3PS	10	Phenyl

● CQH_P series

MCI GEL™ CQH3BP and CQH3PP are for preparative chromatography materials for separating biomolecules in the basis of difference of their hydrophobic properties. Average particle size is 30 μm.

The relative hydrophobicity of the CQH_P series columns decrease in the following order. CQH3PP > CQH3BP.

The chromatographic characteristics of CQH_S series and CQH_P series are same, so experimental results of separating conditions of CQH_S series can be applied to CQH_P series.

<Packing material list>

Material name	Particle size [μm]	Functional group
MCI GEL™ CQH3BP	30	Butyl
MCI GEL™ CQH3PP	30	Phenyl

Application data of CQH series

Fig. 4-18 Separation of human serum

Conditions
 Column : MCI GEL™ CQH3ES 7.5mm I.D.×75mm
 MCI GEL™ CQH3PS 7.5mm I.D.×75mm
 Eluent : A B+1.7M(NH₄)₂SO₄
 B 0.1M Phosphate buffer pH6.8
 A → B 60min linear gradient
 Flow rate : 1 ml/min
 Column temp.: ambient
 Detection : 280nm
 Sample : Human serum

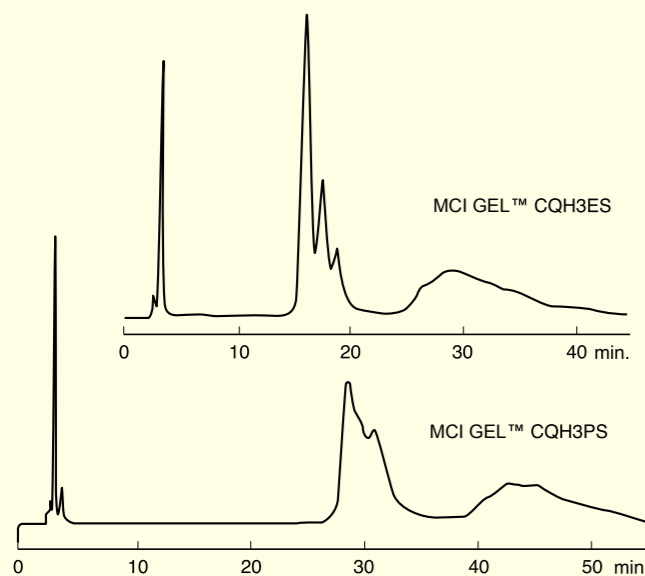


Fig. 4-19 Separation of colibacillus extract

Conditions
 Column : MCI GEL™ CQH3ES 7.5mm I.D.×75mm
 Eluent : A B+1.7M(NH₄)₂SO₄
 B 0.1M Phosphate buffer pH6.8
 A → B 30min linear gradient
 Flow rate : 1.0 ml/min
 Column temp.: ambient
 Detection : 280nm
 Sample : Colibacillus extract

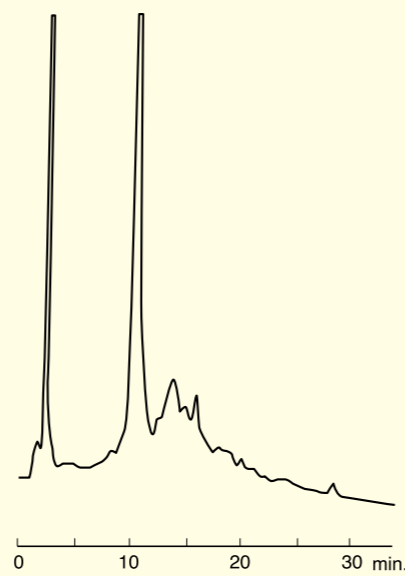


Fig. 4-20 Separation of colibacillus extract

Conditions
 Column : MCI GEL™ CQH3PS 7.5mm I.D.×75mm
 Eluent : A B+1.7M(NH₄)₂SO₄
 B 0.1M Phosphate buffer pH6.8
 A → B 30min linear gradient
 Flow rate : 1.0 ml/min
 Column temp.: ambient
 Detection : 280nm
 Sample : Colibacillus extract

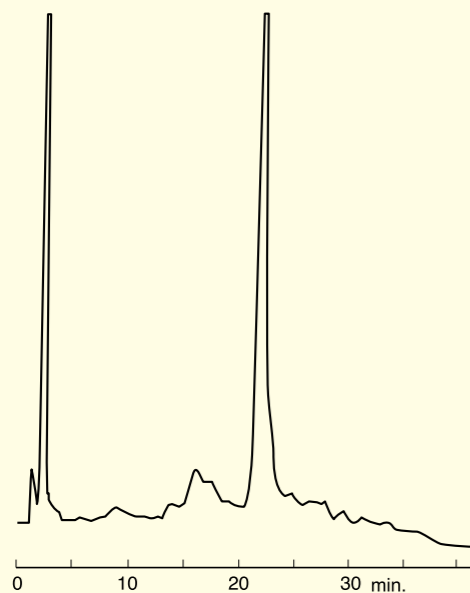
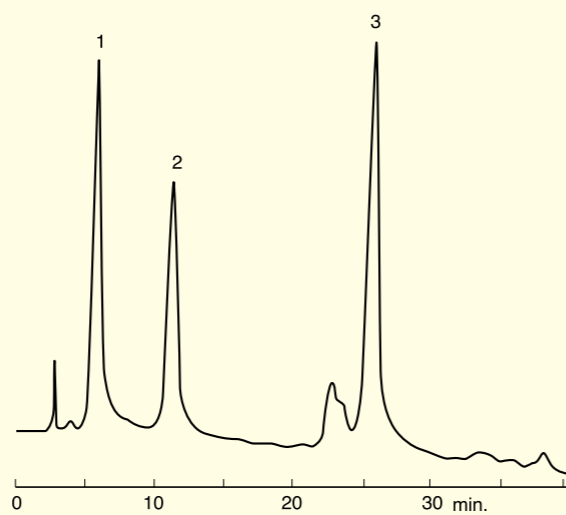


Fig. 4-21 Separation of mixture of peptides

Conditions
 Column : MCI GEL™ CQH3PS 7.5mm I.D.×75mm
 Eluent : A B+1.7M(NH₄)₂SO₄
 B 0.1M Phosphate buffer pH6.8
 A → B 30min linear gradient
 Flow rate : 1.0 ml/min
 Column temp.: ambient
 Detection : 220nm
 Sample : 1. Met-Leu-Tyr
 2. Leu-Enkephalin
 3. Bacitracin



Application data of CQH series

Fig. 4-22 Proteins

Conditions
 Column : MCI GEL™ CQH3BS, 7.5mm I.D.×75mmL
 MCI GEL™ CQH3BP, 7.5mm I.D.×75mmL
 Eluent : A : B+1.7M (NH₄)₂SO₄
 B : 0.1M Phosphate buffer (pH6.8)
 Gradient : A→B, 30min, linear
 Flow rate : 1.0 ml/min
 Column temp.: 25°C
 Detection : 280nm,
 Sample : 1. Ribonuclease A 112µg
 2. Transferrin 154µg
 3. α-Chymotrypsinogen A 60µg

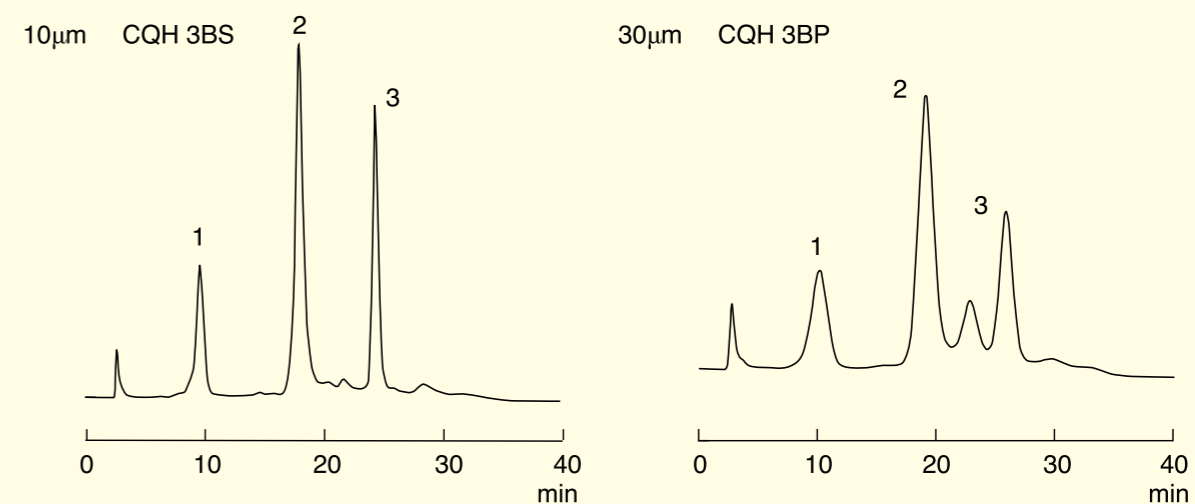


Fig. 4-23 Proteins

Conditions
 Column : MCI GEL™ CQH3PS, 7.5mm I.D.×75mmL
 MCI GEL™ CQH3PP, 7.5mm I.D.×75mmL
 Eluent : A : B+1.7M (NH₄)₂SO₄
 B : 0.1M Phosphate buffer (pH6.8)
 Gradient : A→B, 30min, linear
 Flow rate : 1.0 ml/min
 Column temp.: 25°C
 Detection : 280nm,
 Sample : 1. Ribonuclease A 112µg
 2. Transferrin 154µg
 3. α-Chymotrypsinogen A 60µg

