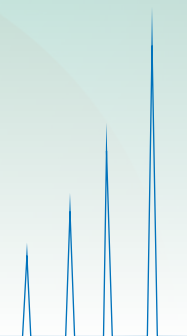


YMC Alternatives to Existing BioLC Columns



IEX Anion Exchanger



Manufacturer	Phase	Base Particle	Mode	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Advantage
Agilent	Bio SAX	polymer	SAX	non-porous	1.7; 3; 5; 10	80	BioPro IEX QF	–	polymer	non-porous	3; 5	60	high reproducibility
	Bio WAX	polymer	WAX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX QF	polymer	non-porous	3; 5	60	high resolution
	Bio-Monolith DEAE	monolith polymer	WAX	non-porous	–	40	–	BioPro IEX QF	polymer	non-porous	3; 5	60	pH & temp. range, PEEK hardware, high resolution, high reproducibility
	Bio-Monolith QA	monolith polymer	SAX	non-porous	–	40	–	BioPro IEX QF	polymer	non-porous	3; 5	60	temp. range, PEEK hardware, high resolution, high reproducibility
	PL-SAX	polymer	SAX	1,000; 4,000	5; 8; 10; 30	80	BioPro IEX QA	–	polymer	1,000	5	60	high reproducibility, PEEK hardware
	ZORBAX SAX	silica	SAX	70	5	80	–	BioPro IEX QA	polymer	1,000	5	60	pH range, PEEK hardware
Cytiva	Mono Q	polymer	SAX	porous	10	40	–	BioPro IEX QA	polymer	1,000	5	60	high recovery, high resolution
Sepax	Proteomix® SAX	polymer	SAX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware
	Proteomix® WAX	polymer	WAX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware
Thermo Scientific	BioBasic AX	silica-polymer coating	WAX	300	5	60	–	BioPro IEX QA	polymer	1,000	5	60	pH range, high resolution, PEEK hardware
	DNAPac™ PA100 Oligonukleotid	polymer	SAX	non-porous	13	90	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware, high resolution
	DNAPac PA200 (RS)	polymer	SAX	non-porous	8 (4)	85	BioPro IEX QF	–	polymer	non-porous	3; 5	60	high reproducibility
	ProPac PA1	polymer	SAX	non-porous	10	N/A	BioPro IEX QF	–	polymer	non-porous	3; 5	60	high resolution
	ProPac SAX-10	polymer	SAX	non-porous	10	60	BioPro IEX QF	–	polymer	non-porous	3; 5	60	high resolution
	ProPac WAX-10	polymer	WAX	non-porous	10	60	–	BioPro IEX QF	polymer	non-porous	3; 5	60	high resolution
	ProSwift™ WAX-1S	monolith polymer	WAX	non-porous	–	60	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware, high resolution, high reproducibility
Tosoh	TSKgel BioAssist Q	polymer	SAX	4,000	10; 13	60	–	BioPro IEX QA	polymer	1,000	5	60	high recovery, high resolution
	TSKgel DEAE-2SW	silica	WAX	125	5	45	–	BioPro IEX QA	polymer	1,000	5	60	pH & temp. range, PEEK hardware, high resolution
	TSKgel DEAE-3SW	silica	WAX	250	10	45	–	BioPro IEX QA	polymer	1,000	5	60	pH & temp. range, PEEK hardware, high resolution
	TSKgel DEAE-5PW	polymer	WAX	1,000	10; 13	45	–	BioPro IEX QA	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution
	TSKgel DEAE-NPR	polymer	WAX	non-porous	2.5	60	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware, high resolution
	TSKgel DNA-NPR	polymer	WAX	non-porous	2.5	60	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware, high resolution
	TSKgel DNA-STAT	polymer	SAX	non-porous	5	60	BioPro IEX QF	–	polymer	non-porous	3; 5	60	pH range, PEEK hardware, high resolution
	TSKgel QAE-2SW	silica	SAX	125	5	45	–	BioPro IEX QA	polymer	1,000	5	60	pH & temp. range
	TSKgel Q-STAT	polymer	SAX	non-porous	7; 13	60	BioPro IEX QF	–	polymer	non-porous	3; 5	60	pH range, PEEK hardware, high resolution
	TSKgel SAX	polymer	SAX	60	5	45	–	BioPro IEX QA	polymer	1,000	5	60	temp. range, PEEK hardware
	TSKgel Sugar AXG	polymer	SAX	60	10	80	–	BioPro IEX QA	polymer	1,000	5	60	PEEK hardware, high resolution
	TSKgel Sugar AXI	polymer	SAX	60	8	80	–	BioPro IEX QA	polymer	1,000	5	60	PEEK hardware, high resolution
TSKgel SuperQ-5PW	polymer	SAX	1,000	10; 13	45	BioPro IEX QA	–	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution	
Waters	BioSuite Anion-exchange	polymer	WAX	non-porous	2.5	60	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware, high resolution
	BioSuite Anion-exchange	polymer	SAX	4,000	10	60	–	BioPro IEX QA	polymer	1,000	5	60	high resolution
	BioSuite DEAE Anion-exchange	polymer	WAX	1,000	10; 13	40	–	BioPro IEX QA	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution
	BioSuite Q Anion-exchange	polymer	SAX	1,000	10; 13	40	BioPro IEX QA	–	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution
	Gen-Pak Anion-Exchange	polymer	WAX	non-porous	2.5	60	–	BioPro IEX QF	polymer	non-porous	3; 5	60	PEEK hardware, high resolution
	Protein-Pak DEAE 5PW	polymer	WAX	1,000	10; 12.5	N/A	–	BioPro IEX QA	polymer	1,000	5	60	pH range, PEEK hardware, high resolution
Protein-Pak Hi Res Q	polymer	SAX	non-porous	5	60	BioPro IEX QF	–	polymer	non-porous	3; 5	60	pH range, PEEK hardware, high resolution	

WAX: weak anion exchange; SAX: strong anion exchange

IEX Cation Exchanger



Manufacturer	Phase	Base Particle	Mode	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Advantage
Agilent	Bio Mab	polymer	WCX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX SF	polymer	non-porous	3; 5	60	high resolution
	Bio-Monolith S03	monolith polymer	SCX	non-porous	–	40	–	BioPro IEX SF	polymer	non-porous	3; 5	60	temp. range, Peek hardware, high resolution, high reproducibility
	Bio SCX	polymer	SCX	non-porous	1.7; 3; 5; 10	80	BioPro IEX SF	–	polymer	non-porous	3; 5	60	high reproducibility
	Bio WCX	polymer	WCX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX SF	polymer	non-porous	3; 5	60	high resolution
	PL-SCX	polymer	SCX	1,000; 4,000	5; 8; 10; 30	80	BioPro IEX SP	–	polymer	1,000	5	60	high reproducibility, PEEK hardware
	ZORBAX SAX	silica	SCX	300	5	80	–	BioPro IEX SP	polymer	1,000	5	60	pH range, PEEK hardware
Cytiva	Mono S	polymer	SCX	porous	10	40	–	BioPro IEX SF	polymer	1,000	5	60	high resolution
Phenomenex	bioZen WCX	polymer	WCX	non-porous	6	60	–	BioPro IEX SF	polymer	non-porous	3; 5	60	high resolution
Sepax	Antibodix®WCX	polymer	WCX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX SF	polymer	non-porous	3; 5	60	Peek hardware
	Proteomix® SCX	polymer	SCX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX SF	polymer	non-porous	3; 5	60	Peek hardware
	Proteomix® WCX	polymer	WCX	non-porous	1.7; 3; 5; 10	80	–	BioPro IEX SF	polymer	non-porous	3; 5	60	Peek hardware
Thermo Scientific	BioBasic SCX	silica-polymer coating	SCX	300	5	60	–	BioPro IEX SP	polymer	1,000	5	60	pH range, PEEK hardware
	MABPac SCX-10 (RS)	polymer	SCX	non-porous	3; 5; 10 (5)	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	high reproducibility
	ProPac Elite	polymer	WCX	non-porous	5	60	–	BioPro IEX SF	polymer	non-porous	3; 5	60	high resolution
	ProPac SCX-10	polymer	SCX	non-porous	10	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	high resolution
	ProPac SCX-20	polymer	SCX	non-porous	10	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	high resolution
	ProPac WCX-10	polymer	WCX	non-porous	10	60	–	BioPro IEX SF	polymer	non-porous	3; 5	60	high resolution
	ProSwift™ WCX-1S	monolith polymer	WCX	non-porous	–	60	–	BioPro IEX SF	polymer	non-porous	3; 5	60	Peek hardware, high resolution, high reproducibility
Tosoh	TSKgel BioAssist S	polymer	SCX	1,300	7; 13	60	–	BioPro IEX SP	polymer	1,000	5	60	high resolution
	TSKgel CM-5PW	polymer	WCX	1,000	10	30	–	BioPro IEX SP	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution
	TSKgel CM-STAT	polymer	WCX	non-porous	7; 10	60	–	BioPro IEX SF	polymer	non-porous	3; 5	60	pH range, PEEK hardware, high resolution
	TSKgel SCX	polymer	SCX	60	5	45	–	BioPro IEX SP	polymer	1,000	5	60	temp. range, PEEK hardware
	TSKgel SP-5PW	polymer	SCX	1,000	10; 13	45	–	BioPro IEX SP	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution
	TSKgel SP-NPR	polymer	SCX	non-porous	2.5	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	high resolution, sharp peaks, PEEK hardware
	TSKgel SP-STAT	polymer	SCX	non-porous	7; 10	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	pH range, PEEK hardware, high resolution
	TSKgel CM-2SW	silica	WCX	125	5	45	–	BioPro IEX SP	polymer	1,000	5	60	pH & temp. range, PEEK hardware, high resolution
	TSKgel CM-3SW	silica	WCX	250	10	45	–	BioPro IEX SP	polymer	1,000	5	60	pH & temp. range, PEEK hardware, high resolution
TSKgel SP-2SW	silica	SCX	125	5	45	–	BioPro IEX SP	polymer	1,000	5	60	pH & temp. range, PEEK hardware	
Waters	BioResolve SCX mAb	polymer	SCX	non-porous	3	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	PEEK hardware, high reproducibility
	BioSuite Cation-exchange	polymer	SCX	non-porous	2.5	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	PEEK hardware, high reproducibility
	BioSuite Cation-exchange	polymer	SCX	1,300	7	60	–	BioPro IEX SP	polymer	1,000	5	60	high resolution
	BioSuite CM Cation-exchange	polymer	WCX	1,000	10; 13	40	–	BioPro IEX SP	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution
	BioSuite SP Cation-exchange	polymer	SCX	1,000	10; 13	40	BioPro IEX SP	–	polymer	1,000	5	60	temp. range, PEEK hardware, high resolution
	Protein-Pak Hi Res CM	polymer	WCX	non-porous	7	60	–	BioPro IEX SF	polymer	non-porous	3; 5	60	PEEK hardware, high resolution
	Protein-Pak Hi Res SP	polymer	SCX	non-porous	7	60	BioPro IEX SF	–	polymer	non-porous	3; 5	60	pH range, PEEK hardware, high resolution
Protein-Pak SP 5PW	polymer	SCX	1,000	10	N/A	BioPro IEX SP	–	polymer	1,000	5	60	PEEK hardware, high resolution	

WCX: weak cation exchange; SCX: strong cation exchange

Manufacturer	Phase	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Advantage
Agilent	AdvanceBio Amino Acid Analysis	core-shell silica	C18	yes	100	2.7	65	Meteoric Core C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
	AdvanceBio EC-C18	core-shell silica	C18	yes	N/A	2.7	60	Meteoric Core C18	metal-free YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range
	AdvanceBio Oligonucleotide	core-shell silica	C18	yes	120	2.7	65	Meteoric Core C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
	AdvanceBio Peptide Mapping	core-shell silica	C18	yes	120	2.7	60	Meteoric Core C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
	AdvanceBio Peptide Plus	core-shell silica	C18	yes	100	2.7	60	Meteoric Core C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
	Poroshell 300 Extend-C18	core-shell silica	C18	yes	300	5	<pH 8: 60 >pH 8: 40	–	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
	Poroshell 300 SB-C18	core-shell silica	C18	no	300	5	90	–	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH range, bioinert hardware
	ZORBAX 300Extend-C18	silica	C18	yes	300	3.5; 5	<pH 8: 60 >pH 8: 40	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
ZORBAX RRHD 300SB-C18 ZORBAX 300SB-C18	silica	C18	no	300	1.8 3.5; 5; 7	80 / 90	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware	
Millipore Sigma	Ascentis® Express Peptide ES-C18	core-shell silica	C18	no	160	2.7	≤ 100	Meteoric Core C18 BIO	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	BIOshell A160 Peptide C18	core-shell silica	C18	no	160	2; 2.7; 5	90	Meteoric Core C18 BIO	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	BIOshell A400 Protein C18	core-shell silica	C18	yes	400	3.4	90	–	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH range, bioinert hardware
	BIOshell IgG 1000 Å C18	core-shell silica	C18	yes	1,000	2.7	90	–	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH range, bioinert hardware
	Discovery BIO Wide Pore C18	silica	C18	yes	300	3; 5; 10	70	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, high resolution
Phenomenex	Aeris PEPTIDE XB-C18	core-shell silica	C18	yes	100	1.7; 2.6; 3.6; 5	90	Meteoric Core C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	Aeris WIDEPÖRE XB-C18	core-shell silica	C18	yes	200	3.6	90	Meteoric Core C18 BIO	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH range, bioinert hardware
	bioZen Oligo	organo-silica core-shell	C18	yes	100	1.7; 2.6	60	Meteoric Core C18	metal-free YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	bioZen Peptide PS-C18	silica	pos. charged surface with C18	yes	100	1.6; 3	90	–	metal-free YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range
	bioZen Peptide XB-C18	core-shell silica	C18	yes	100	1.7; 2.6	90	Meteoric Core C18	metal-free YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range
	Clarity Oligo-MS	core-shell silica	C18	N/A	100	1.7; 2.6	60	Meteoric Core C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
	Clarity Oligo-RP	organo-silica	C18	N/A	110	3; 5; 10	60	YMC-Triart C18	–	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	temp. range, bioinert hardware
	Clarity Oligo-XT	organo-silica core-shell	C18	N/A	100	1.7; 2.6; 5	60	Meteoric Core C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	temp. range, bioinert hardware
Synergi Hydro-RP	silica	C18 with hydrophilic endcapping	yes	80; 100	2.5; 4; 10	60	Hydrosphere C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution	

Manufacturer	Phase	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Advantage
Thermo Scientific	Acclaim 300 C18	silica	C18	yes	300	3	60	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
	BioBasic 18	silica	C18	yes	300	5	60	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
Tosoh	TSKgel Octadecyl-2PW	polymer	C18	N/A	125	5	50	–	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	temp. range, bioinert hardware, high resolution
	TSKgel Octadecyl-4PW	polymer	C18	N/A	500	7; 13	50	–	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	temp. range, bioinert hardware, high resolution
	TSKgel Octadecyl-NPR	polymer	C18	N/A	non-porous	2.5	60	–	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	temp. range, bioinert hardware, high resolution
	TSKgel ODS-100V	silica	C18	yes	100	3; 5	50	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel ODS-120A	silica	C18	no	150	5; 10	45	YMC-Pack ODS-AL	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel ODS-120T	silica	C18	yes	150	5; 10	50	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel ODS-140HTP	silica	C18	yes	140	2.3	50	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel ODS-80TM	silica	C18	yes	100	5; 10	45	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel ODS-80TS	silica	C18	yes	100	5; 10	50	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel OligoDNA-RP	silica	C18	no	250	5	45	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel Super-ODS	silica	C18	yes	140	2.3	50	–	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution

Manufacturer	Phase	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Advantage
Waters	AccQ-Tag Amino Acids C18	silica	C18	yes	60	4	N/A	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware, high resolution
	AccQ-Tag Ultra C18	hybrid	C18	yes	130	1.7; 2.5	N/A	YMC-Triart C18	–	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	bioinert hardware
	ACQUITY Premier Oligonucleotide C18 ACQUITY UPLC Oligonucleotide BEH C18	hybrid	C18	yes	130	1.7	90	(metal-free) YMC-Triart C18	–	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	ACQUITY Premier Peptide BEH C18 ACQUITY UPLC Peptide BEH C18	hybrid	C18	yes	130	1.7	90	(metal-free) YMC-Triart C18	–	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	ACQUITY Premier Peptide BEH C18 ACQUITY UPLC Peptide BEH C18	hybrid	C18	yes	300	1.7	90	(metal-free) YMC-Triart Bio C18	–	hybrid	C18	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	ACQUITY Premier Peptide CSH C18 ACQUITY UPLC Peptide CSH C18	hybrid	pos. charged surface with C18	yes	130	1.7	80	–	(metal-free) YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, high reproducibility
	ACQUITY Premier Peptide HSS T3 ACQUITY UPLC Peptide HSS T3	silica	C18	yes	100	1.8	45	–	(metal-free) YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, high reproducibility
	BioSuite C18 PA-A	silica	C18	yes	100	3	50	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	BioSuite C18 PA-B	silica	C18	yes	300	3.5	50	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
	BioSuite pC18	polymer	C18	yes	500	2.5; 7; 13	50	–	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	temp. range, bioinert hardware, high resolution
	DeltaPak C18	silica	C18	yes	100	5; 15	50	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	DeltaPak C18	silica	C18	yes	300	5; 15	50	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
	Pico-Tag C18	silica	C18	N/A	60	4	N/A	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware, high resolution
	Symmetry C18	silica	C18	yes	100	3.5; 5	45	YMC-Pack Pro C18	YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	Symmetry C18	silica	C18	yes	300	3.5; 5	45	YMC-Pack ODS-A	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 9: 90 >pH 9: 50	pH & temp. range, bioinert hardware, high resolution
	XBridge (Premier) BEH C18	hybrid	C18	yes	130	(2.5); 3.5; 5	90	(metal-free) YMC-Triart C18	–	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	XBridge Premier Oligonucleotide BEH C18 XBridge Oligonucleotide BEH C18	hybrid	C18	yes	130	2.5	90	(metal-free) YMC-Triart C18	–	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	XBridge Premier Peptide BEH C18 XBridge Peptide BEH C18	hybrid	C18	yes	130	2.5 3.5; 5; 10	80	(metal-free) YMC-Triart C18	–	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	XBridge Premier Peptide BEH C18 XBridge Peptide BEH C18	hybrid	C18	yes	300	2.5 2.5; 3.5; 5; 10	80	(metal-free) YMC-Triart Bio C18	–	hybrid	C18	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility
	XSelect Premier Peptide CSH C18 XSelect Peptide CSH C18 (XP)	hybrid	pos. charged surface with C18	yes	130	2.5 3.5; 5; (2.5)	80	–	(metal-free) YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, high reproducibility
XSelect Premier Peptide HSS T3 XSelect Peptide HSS T3	silica	C18	yes	100	2.5 2.5; 5	45	YMC-Pack Pro C18	(metal-free) YMC-Triart C18	hybrid	C18	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, high reproducibility	

Manufacturer	Phase	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Advantage
Agilent	AdvanceBio RP-mAb C4	core-shell silica	C4	yes	450	3.5	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	AdvanceBio RP-mAb SB-C8	core-shell silica	C8	no	450	3.5	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	Poroshell 300SB-C3	core-shell silica	C3	no	300	5	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	Poroshell 300SB-C8	core-shell silica	C8	no	300	5	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	ZORBAX RRHD 300SB-C3 ZORBAX 300SB-C3	silica	C3	no	300	1.8 3.5; 5; 7	80	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
	ZORBAX RRHD 300SB-C8 ZORBAX 300SB-C8	silica	C8	no	300	1.8 3.5; 5; 7	80	YMC-Pack C8	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
Millipore Sigma	BIOshell A400 Protein C4	core-shell silica	C4	yes	400	3.4	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	BIOshell IgG 1000 Å C4	core-shell silica	C4	yes	1,000	2.7	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	Discovery BIO Wide Pore C5	silica	C5	yes	300	3; 5; 10	70	YMC-Pack C4	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	Discovery BIO Wide Pore C8	silica	C8	yes	300	5; 10	70	YMC-Pack C8	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
Phenomenex	Aeris WIDEPOR C4	core-shell silica	C4	yes	200	3.6	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware, high recovery
	Aeris WIDEPOR XB-C8	core-shell silica	C8	yes	200	3.6	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	bioZen WidePore C4	core-shell silica	C4	yes	400	2.6	90	–	metal-free YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, high reproducibility
	bioZen Intact XB-C8	core-shell silica	C8	yes	200	3.6	90	–	metal-free YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, high reproducibility
Thermo Scientific	Accucore 150-C4	core-shell silica	C4	yes	150	2.6	60	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
	BioBasic 4	silica	C4	yes	300	5	60	YMC-Pack C4	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	BioBasic 8	silica	C8	yes	300	5	60	YMC-Pack C8	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
Tosoh	TSKgel Protein C4-300	silica	C4	yes	300	3	50	YMC-Pack C4	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel Octyl-80TS	silica	C8	yes	100	5	50	YMC-Pack Pro C8	YMC-Triart C8	hybrid	C8	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel Super-Octyl	silica	C8	yes	140	2.3	50	–	YMC-Triart C8	hybrid	C8	yes	120	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
Waters	ACQUITY UPLC Protein BEH C4 XBridge Protein BEH C4	hybrid	C4	no	300	1.7 2.5; 3.5; 5	90	YMC-Triart Bio C4	–	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	bioinert hardware, high resolution
	DeltaPak C4	silica	C4	yes	100	5; 15	50	YMC-Pack Pro C4	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	DeltaPak C4	silica	C4	yes	300	5; 15	50	YMC-Pack C4	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	Symmetry C4	silica	C4	yes	300	3.5; 5	45	YMC-Pack C4	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution

RP - Other modifications



Manufacturer	Phase	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Modification	End-capped	Pore Size/ Å	Particle Size/ µm	Max. Temperature/ °C	YMC Advantage
Agilent	AdvanceBio RP-mAb Diphenyl	core-shell silica	diphenyl	yes	450	3.5	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
	PLRP-S	polymer	divinylbenzene	–	100	3; 5; 8; 10; 10–15; 15–20; 50	200	–	YMC-Triart Phenyl	hybrid	phenyl-butyl	yes	120	1.9; 3; 5	50	bioinert hardware, high resolution
	PLRP-S	polymer	divinylbenzene	–	300	3; 5; 8; 10; 10–15; 15–20; 50	200	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	bioinert hardware, high resolution
	PLRP-S	polymer	divinylbenzene	–	1000	3; 5; 8; 10; 10–15; 15–20; 50	200	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	bioinert hardware, high resolution
	PLRP-S	polymer	divinylbenzene	–	4000	3; 5; 8; 10; 10–15; 15–20; 50	200	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	bioinert hardware, high resolution
	ZORBAX RRHD 300-Diphenyl	polymer	diphenyl	yes	300	1.8	80	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware
Millipore Sigma	BIOshell A160 Peptide CN	core-shell silica	cyano	yes	160	2.7; 5	90	–	YMC-Pack CN	silica	cyano	yes	120	3; 5	50	high reproducibility
	BIOshell A160 Peptide Phenyl-Hexyl	core-shell silica	phenyl-hexyl	yes	160	2.7	90	–	YMC-Triart Phenyl	hybrid	phenyl-butyl	yes	120	1.9; 3; 5	50	pH range, bioinert hardware
	BIOshell IgG 1000 Å Diphenyl	core-shell silica	diphenyl	yes	1,000	2.7	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH range, bioinert hardware
Thermo Scientific	DNAPac RP	polymer	N/A	no	N/A	4	100	–	YMC-Triart Bio C18	hybrid	C18	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	MABPac RP	polymer	N/A	no	1,500	4	110	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	bioinert hardware, high resolution
	ProSwift™ RP-1S PSDVB	monolith polymer	phenyl	–	10,350	–	70	–	YMC-Triart Phenyl	hybrid	phenyl-butyl	yes	120	1.9; 3; 5	50	bioinert hardware, high resolution, high reproducibility
	ProSwift™ RP-2H PSDVB	monolith polymer	phenyl	–	22,300	–	70	–	YMC-Triart Phenyl	hybrid	phenyl-butyl	yes	120	1.9; 3; 5	50	bioinert hardware, high resolution, high reproducibility
	ProSwift™ RP-4H PSDVB	monolith polymer	phenyl	–	N/A	–	70	–	YMC-Triart Phenyl	hybrid	phenyl-butyl	yes	120	1.9; 3; 5	50	bioinert hardware, high resolution, high reproducibility
	ProSwift™ RP-3U PSDVB	monolith polymer	phenyl	–	51,810	–	70	–	YMC-Triart Phenyl	hybrid	phenyl-butyl	yes	120	1.9; 3; 5	50	bioinert hardware, high resolution, high reproducibility
Tosoh	TSKgel CN 80TS	silica	cyano	yes	80	5	50	–	YMC-Pack CN	silica	cyano	yes	120	3; 5	50	high reproducibility
	TSKgel Phenyl-5PW RP	polymer	phenyl	N/A	1,000	10; 13	60	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	temp. range, bioinert hardware, high resolution
	TSKgel Super-Phenyl	silica	phenyl	yes	140	2.3	50	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	pH & temp. range, bioinert hardware, high resolution
	TSKgel TMS-250	silica	C1	yes	250	10	80	YMC-Pack TMS	–	silica	C1	N/A	120	3; 5	50	high reproducibility
Waters	BioResolve RP mAb Polyphenyl	core-shell silica	polyphenyl	N/A	450	2.7	90	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	high reproducibility, good peak shape
	BioSuite pPhenyl	polymer	phenyl	yes	1,000	10; 13	50	–	YMC-Triart Bio C4	hybrid	C4	yes	300	1.9; 3; 5	<pH 7: 90 >pH 7: 50	temp. range, bioinert hardware, high resolution

SEC Pore size $\leq 130 \text{ \AA}$



Manufacturer	Phase	Base Particle/ Modification	MW Range/ kDa	Pore Size/ \AA	Particle Size/ μm	Max. Temperature/ $^{\circ}\text{C}$	YMC Alternative	YMC Recommended Alternative	Base Particle/ Modification	MW Range/ kDa	Pore Size/ \AA	Particle Size/ μm	Max. Temperature/ $^{\circ}\text{C}$	YMC Advantage
Agilent	AdvanceBio SEC	polymer	1–80 0.1–120	120 130	1.9 2.7	80	–	YMC-Pack Diol-120	silica / diol	1–100	120	3; 5	40	high reproducibility, minimal secondary interactions
	Bio SEC-3 Bio SEC-5	hydrophilic coated silica	0.1–100	100	3 5	80	–	YMC-Pack Diol-120	silica / diol	1–100	120	3; 5	40	high reproducibility, minimal secondary interactions
Sepax	SRT [®] (-C) SEC-100	silica/diol	0.1–100	100	5	80	YMC-Pack Diol-120	–	silica / diol	1–100	120	3; 5	40	high reproducibility, minimal secondary interactions
	Zenix [®] (-C) SEC-80	silica/diol	0.1–50	80	3	80	–	YMC-Pack Diol-60 YMC-Pack Diol-120	silica / diol	<10 1–100	60 120	3; 5	40	high reproducibility, minimal secondary interactions
	Zenix [®] (-C) SEC-100	silica/diol	0.1–66	100	3	80	YMC-Pack Diol-120	–	silica / diol	1–100	120	3; 5	40	high reproducibility, minimal secondary interactions
Thermo Scientific	BioBasic PREP SEC 60	silica / diol	0.1–60	60	5	60	YMC-Pack Diol-60	–	silica / diol	<10	60	3; 5	40	high reproducibility, minimal secondary interactions
	BioBasic PREP SEC 120	silica / diol	0.7–120	120	5	60	YMC-Pack Diol-120	–	silica / diol	1–100	120	3; 5	40	high reproducibility, minimal secondary interactions
Tosoh	TSKgel BioAssist G2SWXL	silica / diol	5–150	125	5	30	YMC-Pack Diol-200	–	silica / diol	5–300	200	2; 3; 5	40	temp. range, high reproducibility
	TSKgel G2000SWXL TSKgel G2000SW	silica / diol	5–150	125	5 10; 13	30	YMC-Pack Diol-200	–	silica / diol	5–300	200	2; 3; 5	40	temp. range, high reproducibility
	TSKgel QC-PAK 200	silica / diol	5–150	125	5	30	YMC-Pack Diol-200	–	silica / diol	5–300	200	2; 3; 5	40	temp. range, high reproducibility
	TSKgel UP-SW2000 TSKgel SuperSW 2000	silica / diol	5–150	125	2 4	30	YMC-Pack Diol-200	–	silica / diol	5–300	200	2; 3; 5	40	temp. range, high reproducibility
Waters	ACQUITY UPLC Protein BEH 125 XBridge Protein BEH SEC 125	hybrid / diol	1–80	125	1.7 2.5; 3.5	60	–	YMC-Pack Diol-120	silica / diol	1–100	120	3; 5	40	high reproducibility
	BioSuite Diol (OH)	silica / diol	5–150	125	4; 5, 10; 13	30	YMC-Pack Diol-200	–	silica / diol	5–300	200	2; 3; 5	40	temp. & pH range, high reproducibility
	BioSuite Ultra High Resolution 125 SEC BioSuite High Resolution 125 SEC BioSuite 125 SEC	silica / diol	5–150	125	4 5 10; 13	30	YMC-Pack Diol-200	–	silica / diol	5–300	200	2; 3; 5	40	temp. & pH range, high reproducibility
	Protein-Pak 60	silica / diol	0.5–20	60	10	N/A	YMC-Pack Diol-60	–	silica / diol	<10	60	3; 5	40	high reproducibility
	Protein-Pak 125	silica / diol	2–80	125	10	N/A	YMC-Pack Diol-120	–	silica / diol	1–100	120	3; 5	40	high reproducibility

SEC Pore size 145–250 Å



Manufacturer	Phase	Base Particle/Modification	MW Range/kDa	Pore Size/Å	Particle Size/µm	Max. Temperature/°C	YMC Alternative	YMC Recommended Alternative	Base Particle/Modification	MW Range/kDa	Pore Size/Å	Particle Size/µm	Max. Temperature/°C	YMC Advantage
Agilent	AdvanceBio SEC	polymer	2–700	200	1.9	80	–	YMC-Pack Diol-120 YMC-SEC MAB	silica / diol	1–100 10–700	120 250	3; 5 3	40	high reproducibility, minimal secondary interactions
	Bio SEC-3 Bio SEC-5	hydrophilic coated silica	0.5–150	150	3 5	80	–	YMC-Pack Diol-120 YMC-Pack Diol-200	silica / diol	1–100 5–300	120 200	3; 5 2; 3; 5	40	high reproducibility, minimal secondary interactions
	ZORBAX GF-250	silica / diol-zirkonium	4–400	150	4; 6	60	–	YMC-Pack Diol-200	silica / diol	5–300	200	2; 3; 5	40	high reproducibility, minimal secondary interactions
Phenomenex	bioZen dSEC-2	silica / diol	N/A	200	1.8; 3	50	YMC-Pack Diol-200	–	silica / diol	5–300	200	2; 3; 5	40	high reproducibility, minimal secondary interactions
	bioZen SEC-2	silica / N/A	1–450	150	1.8	50	–	YMC-Pack Diol-120 YMC-SEC MAB	silica / diol	1–100 10–700	120 250	3; 5 3	40	high reproducibility, minimal secondary interactions
	Yarra SEC-2000	silica / N/A	1–300	145	3	50	–	YMC-Pack Diol-200	silica / diol	5–300	200	2; 3; 5	40	high reproducibility, minimal secondary interactions
	Yarra SEC-X150	silica / N/A	1–450	150	1.8	50	–	YMC-Pack Diol-120 YMC-SEC MAB	silica / diol	1–100 10–700	120 250	3; 5 3	40	high reproducibility, minimal secondary interactions
Sepax	SRT®(-C) SEC-150	silica / diol	0.5–150	150	5	80	–	YMC-Pack Diol-120 YMC-Pack Diol-200	silica / diol	1–100 1–500	120 200	3; 5	40	high reproducibility, minimal secondary interactions
	Zenix®(-C) SEC-150	silica / diol	0.5–150	150	3	80	–	YMC-Pack Diol-120 YMC-Pack Diol-200	silica / diol	1–100 5–300	120 200	3; 5	40	high reproducibility, minimal secondary interactions
Tosoh	TSKgel BioAssist G3SWXL	silica / diol	10–500	250	5	30	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	temp. range, high reproducibility
	TSKgel G3000SWXL TSKgel G3000SW	silica / diol	10–500	250	5 10; 13	30	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	temp. range, high reproducibility
	TSKgel QC-PAK 300	silica / diol	10–500	250	5	30	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	temp. range, high reproducibility
	TSKgel SuperSW mAb HTP TSKgel SuperSW mAb HR	silica / diol	10–500	250	4	30	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	temp. range, high reproducibility
	TSKgel UP-SW3000 TSKgel SuperSW 3000	silica / diol	10–500	250	2 4	30	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	temp. range, high reproducibility
Waters	ACQUITY Premier Protein SEC XBridge Premier Protein SEC	hybrid-polyethylen oxide	10–650	250	1.7 2.5	60	–	YMC-SEC MAB	silica / diol	10–700	250	3	40	high reproducibility
	ACQUITY UPLC Protein BEH 200 XBridge Protein BEH SEC 200	hybrid / diol	10–450	200	1.7 3.5	60	–	YMC-SEC MAB	silica / diol	10–700	250	3	40	high reproducibility
	BioResolve SEC mAb	hybrid / diol	10–450	200	2.5	60	–	YMC-SEC MAB	silica / diol	10–700	250	3	40	high reproducibility
	BioSuite Diol (OH)	silica / diol	10–500	250	4; 5; 10; 13	30	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	temp. & pH range, high reproducibility
	BioSuite Ultra High Resolution 250 SEC BioSuite High Resolution 250 SEC BioSuite 250 SEC	silica / diol	10–500	250	4 5 10; 13	30	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	temp. & pH range, high reproducibility

SEC Pore Size $\geq 290 \text{ \AA}$



Manufacturer	Phase	Base Particle/ Modification	MW Range/ kDa	Pore Size/ \AA	Particle Size/ μm	Max. Temperature/ $^{\circ}\text{C}$	YMC Alternative	YMC Recommended Alternative	Base Particle/ Modification	MW Range/ kDa	Pore Size/ \AA	Particle Size/ μm	Max. Temperature/ $^{\circ}\text{C}$	YMC Advantage
Agilent	AdvanceBio SEC	polymer	5–1,250	300	2.7	80	–	YMC-Pack Diol-200 YMC-Pack Diol-300	silica / diol	5–300 20–1,000	200 300	2; 3; 5 2; 3; 5	40	high reproducibility, minimal secondary interactions
	Bio SEC-3 Bio SEC-5	hydrophilic coated silica	5–1,250	300	3 5	80	–	YMC-Pack Diol-200 YMC-Pack Diol-300	silica / diol	5–300 20–1,000	200 300	2; 3; 5 2; 3; 5	40	high reproducibility, minimal secondary interactions
	Bio SEC-5	hydrophilic coated silica	15–5,000	500	5	80	–	YMC-Pack Diol-300	silica / diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
	ProSEC 300S	silica / N/A	15–800	300	5	40	–	YMC-Pack Diol-300	silica / diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
	ZORBAX GF-450	silica / diol-zirkonium	10–900	300	6	60	–	YMC-Pack Diol-300	silica / diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
Phenomenex	bioZen SEC-3	silica / N/A	10–700	300	1.8	50	–	YMC-SEC MAB	silica / diol	10–700	250	3	40	high reproducibility, minimal secondary interactions
	Yarra SEC-3000	silica / N/A	5–700	290	3	50	–	YMC-SEC MAB	silica / diol	10–700	250	3	40	high reproducibility, minimal secondary interactions
	Yarra SEC-4000	silica / N/A	15–1,500	500	3	50	–	YMC-Pack Diol-300	silica / diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
	Yarra SEC-X300	silica / N/A	10–700	300	1.8	50	–	YMC-SEC MAB	silica / diol	10–700	250	3	40	high reproducibility, minimal secondary interactions
Sepax	SRT@(-C) SEC-300	silica / N/A	5–1,250	300	5	80	YMC-Pack Diol-300	–	silica/diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
	SRT@(-C) SEC-500	silica / N/A	15–5,000	500	5	80	–	–	–	–	–	–	–	–
	SRT@(-C) SEC-1000	silica / N/A	50–7,500	1000	5	80	–	–	–	–	–	–	–	–
	SRT@(-C) SEC-2000	silica / N/A	>1000	2000	5	80	–	–	–	–	–	–	–	–
	Zenix@(-C) SEC-300	silica / N/A	5–1,250	300	3	80	YMC-Pack Diol-300	–	silica/diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
Thermo Scientific	BioBasic PREP SEC 300	silica / diol	7–1,200	300	5	60	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
	BioBasic PREP SEC 1000	silica / diol	70–10,000	1,000	5	60	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interactions
	MABPac SEC-1	silica / diol	10–1,000	300	5	30	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	temp. & pressure range
	Acclaim™ SEC-300	polymer / N/A	0.1–50	300	5	50	–	YMC-Pack Diol-120	silica/diol	1–100	120	3; 5	40	high reproducibility, minimal secondary interactions
	Acclaim™ SEC-1000	polymer / N/A	1–1,000	1000	7	60	–	YMC-Pack Diol-300	silica/diol	20–1,000	300	2; 3; 5	40	high reproducibility, minimal secondary interaction
Tosoh	TSKgel BioAssist G4SWXL	silica / diol	20–7,000	450	8	30	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	temp. range, high reproducibility
	TSKgel G-DNA-PW	polymer/ N/A	40–8,000	>1000	10	80	–	–	–	–	–	–	–	–
	TSKgel G4000SWXL TSKgel G4000SW	silica / diol	20–7,000	450	8 13; 17	30	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	temp. range, high reproducibility
	TSKgel UP-SW Aggregate TSKgel UltraSW Aggregate	silica / diol	10–2,000	300	3	30	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	temp. range, high reproducibility
Waters	ACQUITY UPLC Protein BEH 450 XBridge Protein BEH SEC 450	hybrid / diol	100–1,500	450	2.5 3.5	60	–	YMC-Pack Diol-300	silica / diol	20–1,000	300	2; 3; 5	40	high reproducibility
	BioSuite High Resolution 450 SEC BioSuite 450 SEC	silica / diol	20–7,000	450	8 13; 17	30	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	temp. & pH range, high reproducibility
	BioSuite Diol (OH)	silica / diol	20–7,000	450	8; 13; 17	30	YMC-Pack Diol-300	–	silica / diol	20–1,000	300	2; 3; 5	40	temp. & pH range, high reproducibility
	Protein-Pak 300	silica / diol	10–500	300	10	N/A	YMC-SEC MAB	–	silica / diol	10–700	250	3	40	high reproducibility

HIC



Manufacturer	Phase	Base Particle	Modification	Pore Size / Å	Particle Size / µm	Max. Temperature / °C	YMC Alternative	YMC Recommended Alternative	Base Particle	Modification	Pore Size / Å	Particle Size / µm	Max. Temperature / °C	YMC Advantage
Agilent	AdvanceBio HIC	silica	N/A	450	3.5	60	–	BioPro HIC HT	polymer	C4	non-porous	2.3	60	pH range, high resolution
Sepax	Proteomix® HIC Butyl	polymer	butyl	non-porous	1.7, 5, 10	80	–	BioPro HIC HT	polymer	C4	non-porous	2.3	60	high throughput, high reproducibility
	Proteomix® HIC Ethyl	polymer	ethyl	non-porous	1.7, 5, 10	80	–	BioPro HIC HT	polymer	C4	non-porous	2.3	60	high throughput, high reproducibility
	Proteomix® HIC Phenyl	polymer	phenyl	non-porous	5, 10	80	–	BioPro HIC BF	polymer	C4	non-porous	4	60	high throughput, high resolution
	Proteomix® HIC Propyl	polymer	propyl	non-porous	5, 10	80	–	BioPro HIC BF	polymer	C4	non-porous	4	60	high throughput, high resolution
Thermo Scientific	MABPac HIC-10	silica	alkyl amide groups	1,000	5	60	–	BioPro HIC HT	polymer	C4	non-porous	2.3	60	pH range, high resolution
	MABPac HIC-20	silica	alkyl amide groups	1,000	5	60	–	BioPro HIC HT	polymer	C4	non-porous	2.3	60	pH range, high resolution
	MABPac HIC-Butyl	polymer	C4	non-porous	5	60	BioPro HIC HT	–	polymer	C4	non-porous	2.3	60	high resolution
	ProPac HIC-10	silica	amide / ethyl	300	5	40	–	BioPro HIC HT	polymer	C4	non-porous	2.3	60	pH & temp. range, high throughput, high resolution
Tosoh	TSKgel Ether-5PW	polymer	ether	1,000	10	50	–	BioPro HIC HT	polymer	C4	non-porous	2.3	60	high throughput, high resolution
	TSKgel Phenyl-5PW	polymer	phenyl	1,000	10; 13	50	–	BioPro HIC BF	polymer	C4	non-porous	4	60	high throughput, high resolution
	TSKgel Butyl-NPR	polymer	C4	non-porous	2.5	60	BioPro HIC HT	–	polymer	C4	non-porous	2.3	60	high throughput, high resolution
Waters	BioSuite Phenyl	polymer	phenyl	1,000	10; 13	50	–	BioPro HIC BF	polymer	C4	non-porous	4	60	high throughput, high resolution
	Protein-Pak Hi Res HIC	polymer	C4	non-porous	2.5	60	BioPro HIC HT	–	polymer	C4	non-porous	2.3	60	high throughput, high resolution