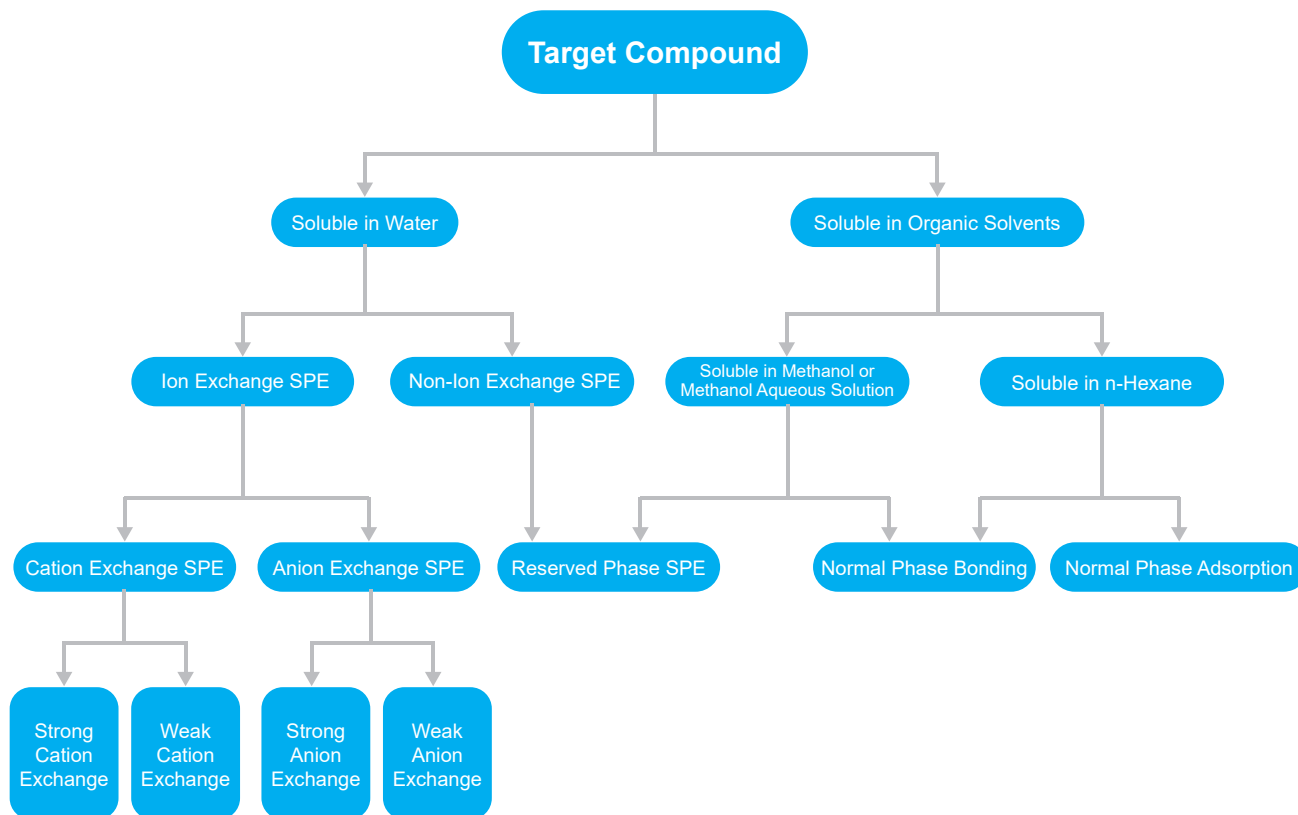


SPE Cartridge

SPE Cartridge Sorbent Selection Guide



Mechanism of Action

Type	Reversed Phase	Normal Phase	Ion Exchange	Other
Mechanism	The reversed phase column sorbent is less polar substance, which extract medium or less polar substances from the extract through hydrophobic interaction.	The normal phase column sorbent is a strong polar substance, which extract strong polar substance from the extract through hydrophilic interaction.	The ion exchange column sorbent is charged, which extract corresponding charged ions by interaction force.	Solid Supported Liquid-Liquid Extraction (SLE), Graphite-Carbon Black (GCB), etc.
Typical Application	Degreasing by reversed phase column in the detection of veterinary drug residues in foods of animal origin.	Remove organic acids from plant-based foods by normal phase column in pesticide residues test.	The MCX column adsorbs the target alkaline compounds such as melamine, ractopamine, etc., then rinse to remove impurities.	Extract aromatic amines in aqueous solution by SLE in azo dyes detection.

Solid Phase Extraction Cartridge Operation Procedures

Distinguish whether the SPE cartridge is used to adsorb the target compound or impurities before experiment. If the SPE cartridge adsorbs the target compound, process will be in 4 steps: activating, loading, washing and elution. If the SPE cartridge adsorbs the impurities, process will be in 3 steps: activating, loading and elution. 1-2 mL/min flow rate and Vacuum Manifolds with pressure control function are recommended.

General Procedures



① Activating



② Loading



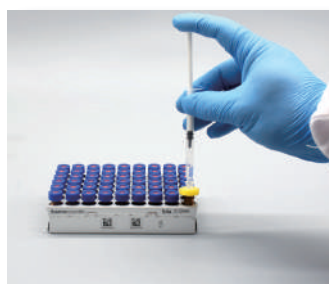
③ Washing



④ Elution



⑦ Analysis



⑥ Filtration



⑤ Concentration

Solid Phase Extraction (SPE) Cartridge Product List

SorbentPhase	GVS	Waters	Agilent	Phenomenex	Supelco	Agela
C18	C18	Sep-pak tC18	Bond Elut C18	Strata C18-E	Sepelclean ENVI-18	Cleanert C18
C18-Ne	C18-n	Sep-pak C18	Bond Elut C18OH	Strata C18-U		Cleanert C18-N
C8	C8	Sep-pak C8	Bond Elut C8	Strata C8	Sepelclean ENVI-8	Cleanert C8
CN	CN	Sep-pak CN	Bond Elut CN-E	Strata CN	Sepelclean LC-CN	Cleanert CN
NH2	NH2	Sep-pak NH2	Bond Elut NH2	Strata NH2	Sepelclean LC-NH2	Cleanert NH2
PSA	PSA		Bond Elut PSA	Strata PSA	Sepelclean PSA	Cleanert PSA
SAX	SAX		Bond Elut SAX	Strata SAX	Sepelclean LC-SAX	Cleanert SAX
SCX	SCX		Bond Elut SCX	Strata SCX	Sepelclean LC-SI	Cleanert SCX
Silica	Silica	Sep-pak SI	Bond Elut SI	Strata SI-I	Sepelclean LC-SCX	Cleanert Silica
HLB	HLB	Oasis HLB	Bond Elut Plexa	Strata-X	Supel-Select HLB	Cleanert PEP
HLB	HLB-lim	Oasis PRIME HLB				
MCX	MCX	Oasis MCX	Bond Elut Plexa PCX	Strata-XC	Supel-Select SCX	Cleanert PCX
MAX	MAX	Oasis MAX	Bond Elut Plexa PAX	Strata-XA	Supel-Select SAX	Cleanert PAX
Florisil	Florisil	Sep-pak FI	Bond Elut FL	Strata FR-PR	Sepelclean LC-Florisil	Cleanert Florisil
Graphitized Bond	Carb-GCB		Bond Elut Carbon		Sepelclean ENVI Carb	Cleanert PestiCarb
Alumina-N	ALN	Sep-pak Alumina-N	Bond Elut Alumina-N	Strata Alumina-N	Sepelclean LC-Alumina-N	Cleanert AluminaN
Alumina-A	ALA	Sep-pak Alumina-A	Bond Elut Alumina-A	Strata Alumina-A	Sepelclean LC-Alumina-A	Cleanert AluminaA
Alumina-B	ALB	Sep-pak Alumina-B	Bond Elut Alumina-B	Strata Alumina-B	Sepelclean LC-Alumina-B	Cleanert AluminaB
GCB/NH2	Carb-GCB/NH2		Bond Elut Carb/NH2		Sepelclean ENVI Carb/NH2	Cleanert PestiCarb/NH2
GCB/PSA	Carb-GCB/PSA		Bond Elut Carb/PSA		Sepelclean ENVI Carb-II/PSA	

Polymer Sorbent

GVS provides various specifications and sorbents of polymeric SPE Cartridges. Each batch has passed performance verification to meet the pretreatment needs of various sample matrices. We provide excellent products of high recoveries and good stability to customers.

HLB Hydrophilic-Lipophilic Balanced

Extracting non-polar to moderately polar acidic, neutral and alkaline compounds

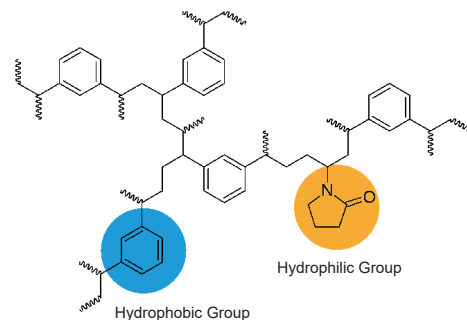
Specifications

Surface area: 600 m²/g Particle size: 40 µm Pore size: 300 Å

Ordering Information

Product Code	Description	Qty.
SPEB00HLB01030A	30mg/1mL	100 Pcs/Box
SPEB00HLB03060A	60mg/3mL	50 Pcs/Box
SPEB00HLB03200A	200mg/3mL	50 Pcs/Box
SPEB00HLB06150A	150mg/6mL	30 Pcs/Box
SPEB00HLB06200A	200mg/6mL	30 Pcs/Box
SPEB00HLB06500A	500mg/6mL	30 Pcs/Box
SPEB00HLB12500A	500mg/12mL	20 Pcs/Box
SPEB00HLB01060A	60mg/1ml	100 Pcs/Box
SPEB00HLB01100A	100mg/1ml	100 Pcs/Box
SPEB00HLB03030A	30mg/3ml	50 Pcs/Box
SPEB00HLB061000A	1g/6ml	30 Pcs/Box

Note: equivalent to Waters Oasis HLB



MAX Mixed-mode Anion Exchange

Extracting acidic compounds

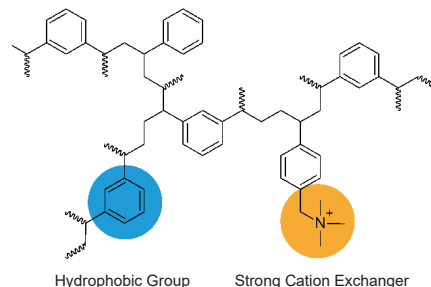
Specifications

Surface area: 600 m²/g

Ordering Information

Product Code	Description	Qty.
SPEB00MAX01030A	30mg/1mL	100 Pcs/Box
SPEB00MAX01060A	60mg/1ml	100 Pcs/Box
SPEB00MAX03030A	30mg/3ml	50 Pcs/Box
SPEB00MAX03060A	60mg/3mL	50 Pcs/Box
SPEB00MAX03200A	200mg/3mL	50 Pcs/Box
SPEB00MAX03500A	500mg/3ml	50 Pcs/Box
SPEB00MAX06150A	150mg/6mL	30 Pcs/Box
SPEB00MAX06200A	200mg/6mL	30 Pcs/Box
SPEB00MAX06500A	500mg/6mL	30 Pcs/Box
SPEB00MAX12500A	500mg/12mL	20 Pcs/Box
SPEB00MAX121000A	1g/12ml	20 Pcs/Box

Note: equivalent to Waters Oasis MAX



CHROMATOGRAPHY

MCX Mixed-mode Cation Exchange

Extracting alkaline compounds

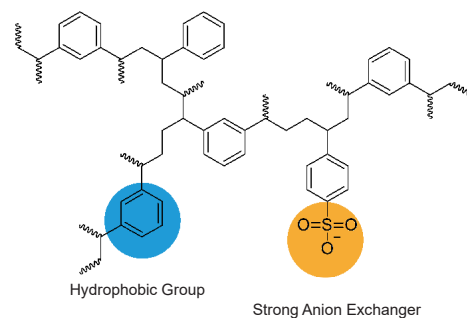
Specifications

Surface area: 600 m²/g Particle size: 40 µm Pore size: 300 Å

Ordering Information

Product Code	Description	Qty.
SPEB00MCX01030A	30mg/1mL	100 Pcs/Box
SPEB00MCX01060A	60mg/1ml	100 Pcs/Box
SPEB00MCX03030A	30mg/3ml	50 Pcs/Box
SPEB00MCX03060A	60mg/3mL	50 Pcs/Box
SPEB00MCX03500A	500mg/3ml	50 Pcs/Box
SPEB00MCX06150A	150mg/6mL	30 Pcs/Box
SPEB00MCX06200A	200mg/6mL	30 Pcs/Box
SPEB00MCX06500A	500mg/6mL	30 Pcs/Box
SPEB00MCX12500A	500mg/12mL	20 Pcs/Box
SPEB00MCX121000A	1g/12ml	20 Pcs/Box

Note: equivalent to Waters Oasis MCX



WCX Weak Cation Exchange

Extracting strong bases

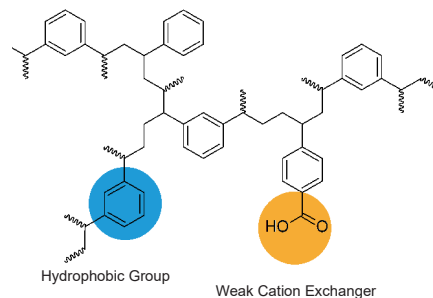
Specifications

Surface area: 600 m²/g Particle size: 40 µm Pore size: 300 Å

Ordering Information

Product Code	Description	Qty.
SPEB00WCX01030A	30mg/1mL	100 Pcs/Box
SPEB00WCX01060A	60mg/1ml	100 Pcs/Box
SPEB00WCX03030A	30mg/3ml	50 Pcs/Box
SPEB00WCX03060A	60mg/3mL	50 Pcs/Box
SPEB00WCX03500A	500mg/3mL	50 Pcs/Box
SPEB00WCX06150A	150mg/6mL	30 Pcs/Box
SPEB00WCX06200A	200mg/6mL	30 Pcs/Box
SPEB00WCX06500A	500mg/6mL	30 Pcs/Box
SPEB00WCX12500A	500mg/12ml	20 Pcs/Box
SPEB00WCX121000A	1g/12ml	20 Pcs/Box

Note: equivalent to Waters Oasis WCX



WAX Weak Anion Exchange

Extracting strong acids

Specifications

Surface area: 600 m²/g Particle size: 40 µm Pore size: 300 Å

Ordering Information

Product Code	Description	Qty.
SPEB00WAX01030A	30mg/1mL	100 Pcs/Box
SPEB00WAX01060A	60mg/1ml	100 Pcs/Box
SPEB00WAX03030A	30mg/3ml	50 Pcs/Box
SPEB00WAX03060A	60mg/3mL	50 Pcs/Box
SPEB00WAX03500A	500mg/3mL	50 Pcs/Box
SPEB00WAX06150A	150mg/6mL	30 Pcs/Box
SPEB00WAX06200A	200mg/6mL	30 Pcs/Box
SPEB00WAX06500A	500mg/6mL	30 Pcs/Box
SPEB00WAX12500A	500mg/12ml	20 Pcs/Box
SPEB00WAX121000A	1g/12ml	20 Pcs/Box

Note: equivalent to Waters Oasis WAX

