Finetech®
Solid Phase Extraction

Finetech® solid phase extraction products include SPE Cartridges, QuEChERS, Immunoaffinity Columns, SPE manifold and chromatographic consumables, are widely used in food safety, textile/leather inspection, environmental protection and clinical diagnosis, etc.

www.finetech-filters.com

ABOUT US

Constantly researching and innovating...

Finetech Research and Innovation Corporation was established in 1999 and has been engaged in the gas and fluid filtration used in laboratories and the medical fields for many years. We concentrate on the researching, developing, and manufacturing of lab filters such as syringe filters, 50mm air/vent filters, pipette filters, gas analyzer filters, and customized filters.

In 2004, we were the first manufacturer of transducer protectors used in dialysis. In 2017, sales of transducer protectors had reached to over 30 million pieces/year. Our high quality and ISO 13485 certified transducer protectors has kept our customers satisfied for more than 14 years.

Manufactured in 2010, our syringe filter is designed to provide efficient filtration of aqueous and organic solutions. It can be used to remove particles from a sample prior to analysis by HPLC, for the filtration of gases, and for the removal of bacteria from a sample. Syringe filters are widely used in environmental, pharmaceutical, biotechnology, and agricultural testing laboratories.

In 2015, Finetech designed and manufactured caps, septa, and samples vials used in chromatography. We supply HPLC consumables to the global chromatography community in over 36 countries. We constantly innovate with releases of new lab consumables and medical devices every year. Some of the other products we manufacture are sterile syringe filter, membrane filters, centrifuge tube, glass microfiber filters, vacuum filtration system, and QuEChERS. To find out more, please visit our website "**www.finetech-filters.com**".

History

2018 Researched and developed QuEChERS, SPE
2017 Produced 15mL & 50mL centrifuge tubes (sterile & non-sterile)
2016 New product launched – sterile filtration cup
2015 Achieved ISO 9001. Received award of Conventional Industry Technology Development for Medical grade septa
2014 Started producing sterile syringe filters
2012 Produced the 1st 50mm air vent filters
2010 Produced the 1st syringe filters manufactured in a cleanroom
2008 Developed transducer protectors. 1st manufacturer in Asia
2005 Awarded the Medical Device award from Taiwan Government
1999 Finetech Research and Innovation Corporation established

Taiwan Factory

China Office

Vietnam Office

New factory under construction in Vietnam

Contents

Solid Phase Extraction Products

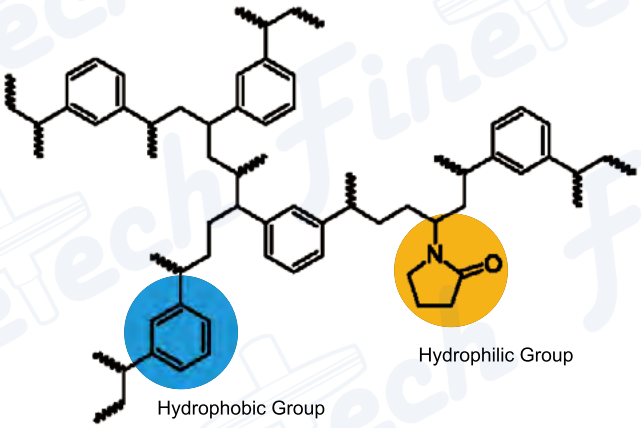
Polymeric SPE

Classical SPE

Mycotoxin Clean-up Columns

HLB Hydrophilic-Lipophilic Balanced

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



HLB sorbent is composed of monodisperse Nvinylpyrrolidone-divinylbenzene copolymer resin particles, with specific mixture of hydrophilic hydrophobic groups, allowing for retention for a wide range of compounds with very high capacities.

HLB can be used as a general-purpose sorbent, especially for extracting analytes from complicated samples such as blood and urine.

- General sorbent, suitable for wide application areas
- Highly wettable, no worry of bed dryness, rare breakthrough
- High recoveries, excellent reproducibilities
- 3 to 10 times higher adsorption capacities and loadabilities than C18 bounded silica gel
- Stable from pH 1 to 14, compatible with most common solvents

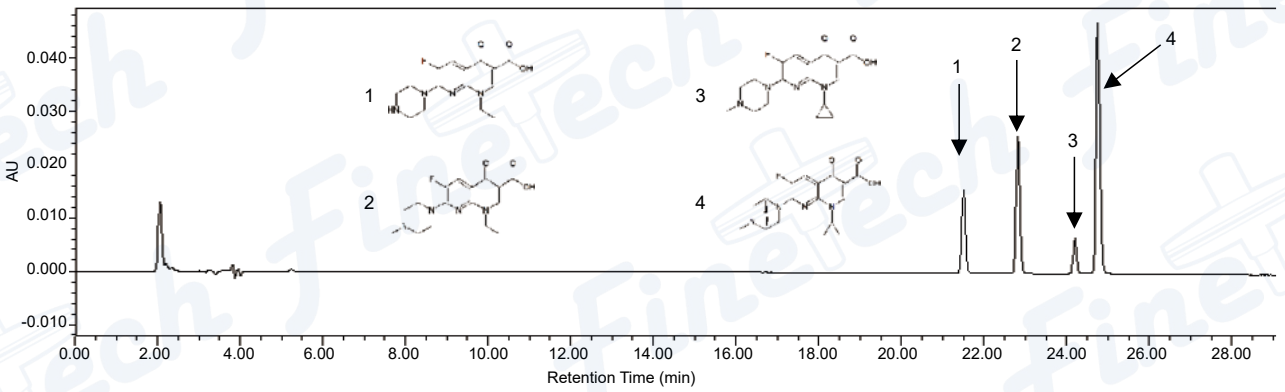
Specifications

Surface area: 600 m^2/g
Particle size: 40 μm
Pore size: 300 Å

Applications

- Determination of drugs, illicit drugs and their metabolites in blood, such as sertraline ibuprofen and heroin
- Determination of residual antibiotics, catecholamines, and microcystins in foodstuff
- Determination of veterinary drugs, pesticides and mycotoxin in milk products

Application: Determination of Quinolones in foods



SPE Cartridge: Finetech HLB, 200mg/3mL

SPE Cartridge: Finetech HLB, 200mg/3mL
System: Waters alliance 2690
Column: Welch Ultimate XB-C18 (4.6*250mm)
Mobile phase A: acetronile
Mobile phase B: water containing 0.1% formic acid
Flowrate: 1 mL/min
Column temperature: room temperature
Injection volume: 20 μL
Detector: UV at 220 nm

Gradient:

Step	Time(min)	A%	B%
1	0	9	91
2	11	9	91
3	20	29	71
4	25	37	63
5	26	100	0
6	30	100	0
7	21	9	91
8	36	9	91

Results

Peak	Retention time (min)	Analyte	Recovery(%)
1	21.508	Enoxacin	92.8
2	22.820	Pefloxacin	82.4
3	24.201	Danofloxacin	93.8
4	24.754	Enrofloxacin	81.2

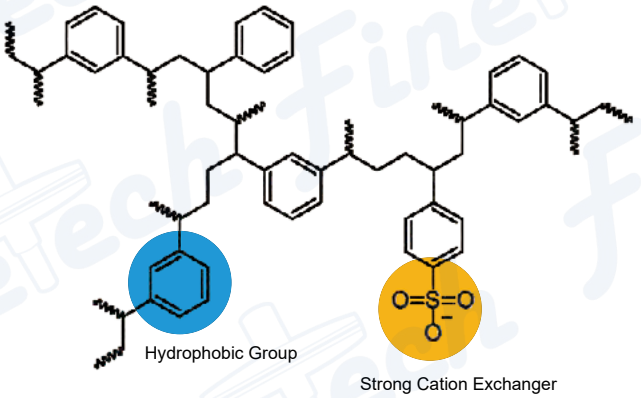
The results suggest that recoveries of > 80% are obtained by using Finetech HLB cartridges to extract the four Quinolones in foods.

◆ Order Information

Cat.#	Format	Qty.
FTHLB130	30mg/1mL	100/Box
FTHLB1100	100mg/1mL	100/Box
FTHLB330	30mg/3mL	50/Box
FTHLB360	60mg/3mL	50/Box
FTHLB3200	200mg/3mL	50/Box
FTHLB3500	500mg/3mL	50/Box
FTHLB6150	150mg/6mL	30/Box
FTHLB6200	200mg/6mL	30/Box
FTHLB6500	500mg/6mL	30/Box
FTHLB12500	500mg/12mL	20/Box

MCX Mixed-mode Cation Exchange

Extracting basic compounds



Specifications

Surface area: 600 m^2/g
Particle size: 40 μm
Pore size: 300 Å

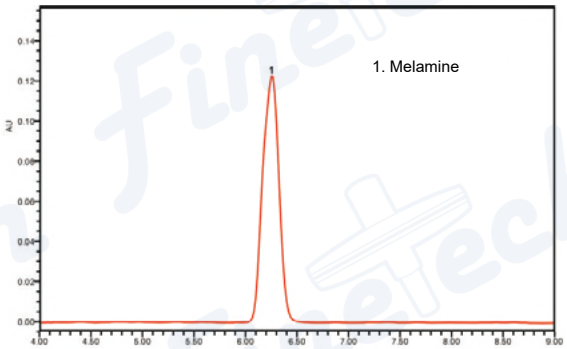
Applications

- Determination of residual pesticides / veterinary drugs in foodstuff, such as clenbuterol
- Analysis of drugs and drug metabolites in biological matrices

MCX sorbent is composed of monodisperse polystyrene-divinylbenzene resin particles grafted with aromatic sulfonic acid groups. This polymeric mixed-mode sorbent features reversed-phase and strong cation exchange retention mechanisms, allowing for superb retention for basic compounds.

- Superb retention for basic compounds
- High surface area, high ion exchange capacities
- Stable from pH 1 to 14, compatible with most common solvents

Determination of Melamine spiked at 0.25 mg/kg in milk

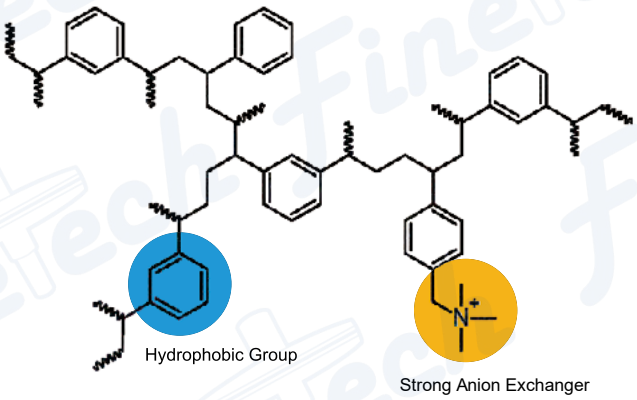


◆ Order Information

Cat.#	Format	Qty.
FTMCX130	30mg/1mL	100/Box
FTMCX1100	100mg/1mL	100/Box
FTMCX330	30mg/3mL	50/Box
FTMCX360	60mg/3mL	50/Box
FTMCX3200	200mg/3mL	50/Box
FTMCX3500	500mg/3mL	50/Box
FTMCX6150	150mg/6mL	30/Box
FTMCX6200	200mg/6mL	30/Box
FTMCX6500	500mg/6mL	30/Box
FTMCX12500	500mg/12mL	20/Box

MAX Mixed-mode Anion Exchange

Extracting acidic compounds



Specifications

Surface area: 600 m^2/g
Particle size: 40 μm
Pore size: 300 Å

Applications

- Determination of residual pesticides / veterinary drugs in foodstuff
- Analysis of drugs and drug metabolites in biological matrices
- Analysis of active ingredients in cosmetics

MAX sorbent is composed of monodisperse polystyrene-divinylbenzene resin particles grafted with aromatic quaternary ammonium groups. This polymeric mixed-mode sorbent features reversedphase and strong anion exchange retention mechanisms, allowing for superb retention for acidic compounds.

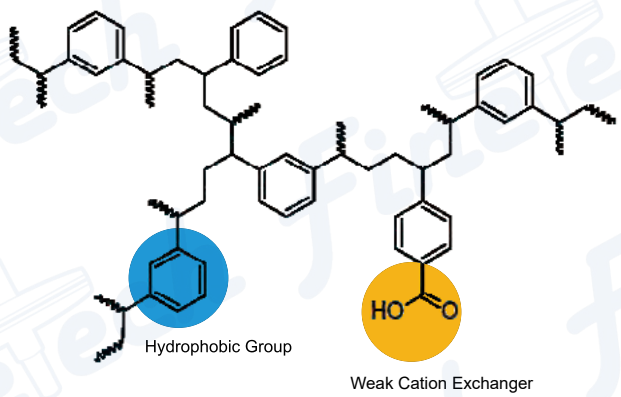
- Wettable, rare breakthrough
- Stable from pH 1 to 14, compatible with most common solvents
- General sorbents for acidic compounds

◆ Order Information

Cat.#	Format	Qty.
FTMAX130	30mg/1mL	100/Box
FTMAX1100	100mg/1mL	100/Box
FTMAX330	30mg/3mL	50/Box
FTMAX360	60mg/3mL	50/Box
FTMAX3200	200mg/3mL	50/Box
FTMAX3500	500mg/3mL	50/Box
FTMAX6150	150mg/6mL	30/Box
FTMAX6200	200mg/6mL	30/Box
FTMAX6500	500mg/6mL	30/Box
FTMAX12500	500mg/12mL	20/Box

WCX Weak Cation Exchange

Extracting strong bases



WCX sorbent is composed of monodisperse microporous polystyrene-divinylbenzene resin particles grafted with carboxylic acid groups. This polymeric mixed-mode sorbent features reversedphase and weak cation exchange retention mechanisms, allowing for superb retention for strong bases such as quaternary ammonium cations.

- Superb retention for strong bases
- Predictable single retention mechanism
- Stable from pH 1 to 14, compatible with most common solvents

Specifications

Surface area: 600 m^2/g
Particle size: 40 μm
Pore size: 300 Å

Applications

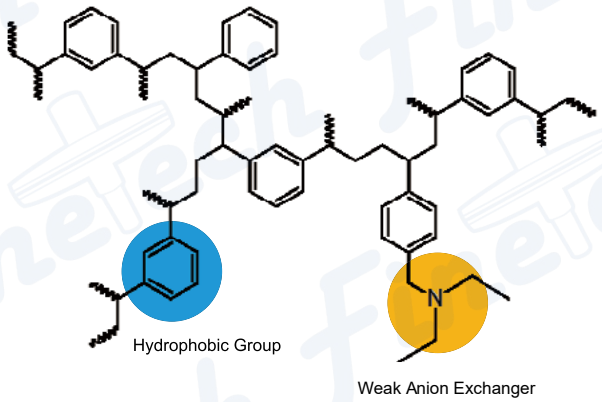
- Analysis of strong basic drugs in biological matrices
- New drug discovery

◆ Order Information

Cat.#	Format	Qty.
FTWCX130	30mg/1mL	100/Box
FTWCX1100	100mg/1mL	100/Box
FTWCX330	30mg/3mL	50/Box
FTWCX360	60mg/3mL	50/Box
FTWCX3200	200mg/3mL	50/Box
FTWCX3500	500mg/3mL	50/Box
FTWCX6150	150mg/6mL	30/Box
FTWCX6200	200mg/6mL	30/Box
FTWCX6500	500mg/6mL	30/Box
FTWCX12500	500mg/12mL	20/Box

WAX Weak Anion Exchange

Extracting strong acids



WAX sorbent is composed of monodisperse microporous polystyrene-divinylbenzene resin particles grafted with amine functional groups. This polymeric mixed-mode sorbent features reversed-phase and weak anion exchange retention mechanisms, allowing for superb retention for strong acids.

- Superb retention for strong acids
- Predictable single retention mechanism
- Stable from pH 1 to 14, compatible with most common solvents

Specifications

Surface area: 600 m^2/g
Particle size: 40 μm
Pore size: 300 Å

Applications

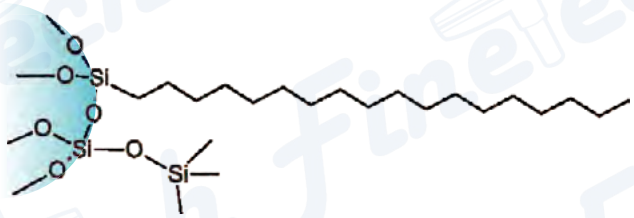
- Analysis of strong acids drugs in biological matrices
- Determination of strong acidic pollutants such as perfluorinated carboxylic acids in environment and water
- New drug discovery

◆ Order Information

Cat.#	Format	Qty.
FTWAX130	30mg/1mL	100/Box
FTWAX1100	100mg/1mL	100/Box
FTWAX330	30mg/3mL	50/Box
FTWAX360	60mg/3mL	50/Box
FTWAX3200	200mg/3mL	50/Box
FTWAX3500	500mg/3mL	50/Box
FTWAX6150	150mg/6mL	30/Box
FTWAX6200	200mg/6mL	30/Box
FTWAX6500	500mg/6mL	30/Box
FTWAX12500	500mg/12mL	20/Box

C18 Endcapped Octadecyl

Extracting non-polar compounds



C18 sorbent is composed of endcapped octadecylbounded silica gel particles and retains non-polar compounds by hydrophobic interactions. It can retain most organic compounds and is widely used in areas such as environmental monitoring and food safety.

- High carbon content
- Fully endcapped surface coverage reducing interference from basic and polar compounds
- Stable over a broader pH range

Specifications

Carbon content: 17.6%
Surface area: 300 m^2/g
Particle size: 40-75 μm
Pore size: 70 Å

Applications

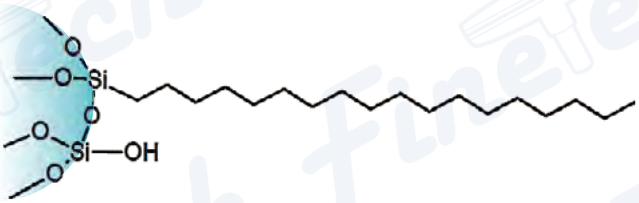
- Analysis of drugs, poisons, pollutants and their metabolites in biological matrices
- Separation of biomolecules such lipids, antibiotics, bile acids and saccharides
- Determination of mycotoxins such as fumonisins in foods
- Determination of preservatives in cosmetics and skin care products

◆ Order Information

Cat.#	Format	Qty.
FTC181100	100mg/1mL	100/Box
FTC183200	200mg/3mL	50/Box
FTC183500	500mg/3mL	50/Box
FTC186500	500mg/6mL	30/Box
FTC1861000	1000mg/6mL	30/Box
FTC18121000	1000mg/12mL	20/Box
FTC18122000	2000mg/12mL	20/Box

C18N Unendcapped Octadecyl

Extracting polar and non-polar compounds



C18N sorbent is composed of octadecyl-bounded silica gel particles. In addition to strong retention for non-polar compounds by hydrophobic interactions, it provides retention for basic compounds due to residual silanols. C18N is a general-purpose sorbent capable of retaining both polar and non-polar compounds.

- High carbon content
- Abundant residual silanols
- General-purpose sorbent

Specifications

Carbon content: 17%
Surface area: 300 m^2/g
Particle size: 40-75 μm
Pore size: 100 Å

Applications

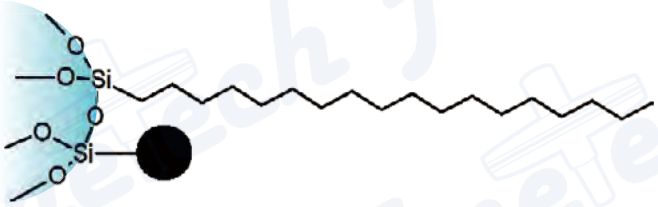
- Determination of organic pollutants such as polycyclic aromatic hydrocarbons (PAHs) in soils
- Determination of pesticides and veterinary drugs such as antibiotics in foods
- Analysis of pigments and saccharides in food
- Desalting of aqueous solutions before ion exchange

◆ Order Information

Cat.#	Format	Qty.
FTC18N1100	100mg/1mL	100/Box
FTC18N3200	200mg/3mL	50/Box
FTC18N3500	500mg/3mL	50/Box
FTC18N6500	500mg/6mL	30/Box
FTC18N61000	1000mg/6mL	30/Box
FTC18N121000	1000mg/12mL	20/Box
FTC18N122000	2000mg/12mL	20/Box

C18A Unendcapped Octadecyl

Extracting non-polar compounds



C18A sorbent is composed of octadecyl-bounded silica gel particles and retains non-polar compounds by hydrophobic interactions.

Hydrophilic surface modification makes C18A wettable and prevents its carbon chains from collapsing in aqueous solutions. Due to its compatibility with aqueous mobile phases, even pure water can be used, and silica particles are more stable.

- Compatible with aqueous solutions
- Additional retention for polar compounds

Specifications

Carbon content 12%
Surface area: 300 m^2/g
Particle size: 40-75 μm
Pore size: 100 Å

Applications

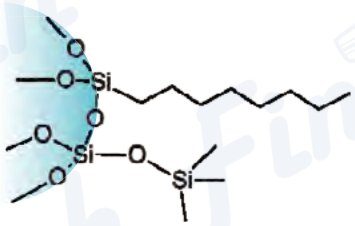
- Desalting of biological macromolecules such as nucleic acids, proteins and peptides.
- Determination of drugs, pesticides and organic pollutants in water, such as polycyclic aromatic hydrocarbons (PAHs)

◆ Order Information

Cat.#	Format	Qty.
FTC18A1100	100mg/1mL	100/Box
FTC18A3200	200mg/3mL	50/Box
FTC18A3500	500mg/3mL	50/Box
FTC18A6500	500mg/6mL	30/Box
FTC18A61000	1000mg/6mL	30/Box
FTC18A121000	1000mg/12mL	20/Box
FTC18A122000	2000mg/12mL	20/Box

C8 Octyl

Extracting non-polar compounds



C8 sorbent is composed of octyl-bounded silica gel particles and retains non-polar compounds by hydrophobic interactions.

Compared with C18, C8 has shorter carbon chains and moderate hydrophobicity, thus makes an alternative for extracting compounds that are strongly retained by C18 sorbent.

- Moderate hydrophobicity
- Capable of extracting compounds which are strongly retained by C18

Specifications

Carbon content: 9%
Surface area: 280 m^2/g
Particle size: 40-75 μm
Pore size: 100 Å

Applications

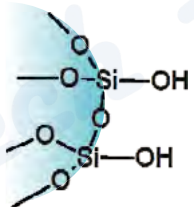
- Extraction of hydrophilic and lipophilic vitamins in plasma
- Determination of residual hormones in meat
- Determination of residual pesticides in waste
- Desalting of biological macromolecules

◆ Order Information

Cat.#	Format	Qty.
FTC81100	100mg/1mL	100/Box
FTC83200	200mg/3mL	50/Box
FTC83500	500mg/3mL	50/Box
FTC86500	500mg/6mL	30/Box
FTC861000	1000mg/6mL	30/Box
FTC8121000	1000mg/12mL	20/Box
FTC8122000	2000mg/12mL	20/Box

Silica Unbounded Silica Gel

Extracting polar compounds



Silica is an unbounded silica gel sorbent. It has the strongest polarity among all normal phase sorbents, able to retain polar compounds in samples, particularly compounds with a similar structure.

- Very strong retention for polar compounds
- High sample loadabilities
- Capable of separating compounds with a similar structure

Specifications

Surface area: 480 m^2/g
Particle size: 40-75 μm
Pore size: 70 Å

Applications

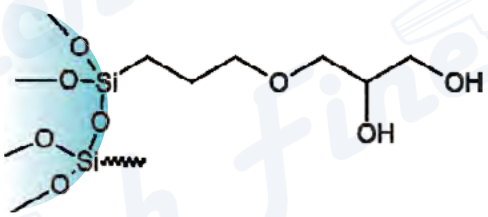
- Analysis of drugs, poisons, pollutants and their metabolites in biological matrices
- Separation of biomolecules such lipids, antibiotics, bile acids and saccharides
- Determination of mycotoxins such as fumonisins in foods
- Determination of preservatives in cosmetics and skin care products

◆ Order Information

Cat.#	Format	Qty.
FTSIL1100	100mg/1mL	100/Box
FTSIL3200	200mg/3mL	50/Box
FTSIL3500	500mg/3mL	50/Box
FTSIL6500	500mg/6mL	30/Box
FTSIL61000	1000mg/6mL	30/Box
FTSIL121000	1000mg/12mL	20/Box
FTSIL122000	2000mg/12mL	20/Box

Diol Dihydroxy

Used in normal or reversed phase, extracting polar compounds



Diol is a dihydroxy bonded silica sorbent similar to unbounded silica sorbent in its capabilities. In addition to its normal retention resulting from strong hydrogen bonding with analytes, the hydrophobic spacers of its functional groups serve to reversed phase retention to a certain extent.

Diol is an alternative to un-bonded silica sorbent if the latter's strong acidity leads to retention of basic interferences.

- Capable of polar and non-polar retention
- Similar to un-bonded silica sorbent in its capabilities
- Reduced retention of basic interferences

Specifications

Carbon content: 5.5%
Surface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

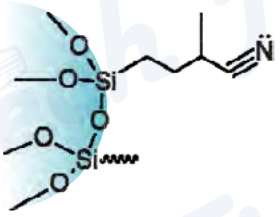
- Analysis of phenols, pigments and phospholipids in plant oils
- Determination of drugs and their metabolites in biological fluids such as urine
- Separation of glycan mixtures

◆ Order Information

Cat.#	Format	Qty.
FTDI1100	100mg/1mL	100/Box
FTDI3200	200mg/3mL	50/Box
FTDI3500	500mg/3mL	50/Box
FTDI6500	500mg/6mL	30/Box
FTDI61000	1000mg/6mL	30/Box
FTDI121000	1000mg/12mL	20/Box
FTDI122000	2000mg/12mL	20/Box

CN Cyanopropyl

Extracting polar and non-polar compounds, enriching metal ions



CN is a cyanopropyl bounded silica sorbent, weakly hydrophilic, used as normal phase or reversed phase. It is able to extract non-polar or weakly polar acids, neutrals and bases from aqueous solutions when used as a reversed phase sorbent. It is also able to extract polar compounds from nonpolar organic solutions when used as a normal phase sorbent. Besides, cyanopropyl is a ligand that can be used to enrich some metal ions.

- Compatible with biological matrices
- Polarity adjustable by changing ratio of solvents

Specifications

Carbon content: 5.8%
Surface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

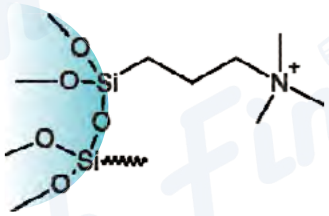
- Analysis of drugs and drug metabolites (such as steroids) in biological fluids
- Determination of residual pesticides / veterinary drugs in food and milk

◆ Order Information

Cat.#	Format	Qty.
FTCN1100	100mg/1mL	100/Box
FTCN3200	200mg/3mL	50/Box
FTCN3500	500mg/3mL	50/Box
FTCN6500	500mg/6mL	30/Box
FTCN61000	1000mg/6mL	30/Box
FTCN121000	1000mg/12mL	20/Box
FTCN122000	2000mg/12mL	20/Box

SAX Strong Anion Exchange

Extracting acidic compounds



SAX is a silica-based strong anion exchanger. Its quaternary ammonium ligand is always positively charged and engenders very strong anion exchange capacity. SCX is able to extract acidic compounds such as carboxylic acids.

- Very strong anion exchange interaction with acidic compounds
- Capable of retaining compounds that are not retained weak anion exchange sorbents
- Simple retention mechanism, with minimal secondary interactions

Specifications

Surface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

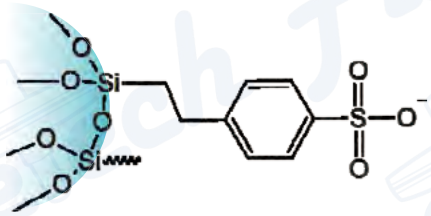
- Removal of negatively charged substances such as organic acids, nucleotides, sulfonic acids and inorganic anions from samples
- Determination of hormones in meat
- Determination of sulfonylurea herbicides in soil, vegetables and cereals

◆ Order Information

Cat.#	Format	Qty.
FTSAX1100	100mg/1mL	100/Box
FTSAX3200	200mg/3mL	50/Box
FTSAX3500	500mg/3mL	50/Box
FTSAX6500	500mg/6mL	30/Box
FTSAX61000	1000mg/6mL	30/Box
FTSAX121000	1000mg/12mL	20/Box
FTSAX122000	2000mg/12mL	20/Box

SCX Strong Cation Exchange

Extracting basic compounds



SCX is a silica-based strong cation exchanger. Its pheylsulfonic acid ligand engenders strong cation exchange capacity, while the benzene ring gives rise to additional non-polar interactions. SCX is able to extract positively charged basic compounds such as amines.

- Low pKa, enabling strong interaction with basic compounds
- Electrical charge of sulfonic acid changeable by adjusting pH of eluent, ensuring convenient elution

Specifications

Surface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

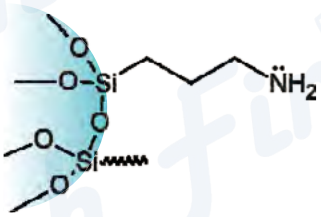
- Determination of residual pesticides / veterinary drugs in foodstuff, such as macrolides
- Determination of illicit drugs, such as amphetamine
- Analysis of drugs and drug metabolites in biological matrices

◆ Order Information

Cat.#	Format	Qty.
FTSCX1100	100mg/1mL	100/Box
FTSCX3200	200mg/3mL	50/Box
FTSCX3500	500mg/3mL	50/Box
FTSCX6500	500mg/6mL	30/Box
FTSCX61000	1000mg/6mL	30/Box
FTSCX121000	1000mg/12mL	20/Box
FTSCX122000	2000mg/12mL	20/Box

NH_2 Aminopropyl

Extracting moderately polar and acidic compounds



Nh_2 sorbent is composed of aminopropyl-bounded silica gel. It retains analytes by strongly polar interactions in organic solutions and by weak anion exchange in aqueous solutions.

- Retaining compounds in normal phase or anion exchange mode
- Capable of cleaning up biological samples with complicated matrix components

Specifications

Carbon content: 4.5%
Surface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

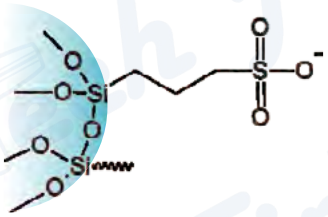
- Removal of negatively charged species such as sulfuric acids
- Determination of drugs and their metabolites such as β2-adrenergic agonists and salicylic acid in biological fluids (blood and urine)
- Determination of macrolide residues in foods and water

Order Information

Cat.#	Format	Qty.
FTNH1100	100mg/1mL	100/Box
FTNH3100	100mg/3mL	50/Box
FTNH3200	200mg/3mL	50/Box
FTNH3500	500mg/3mL	50/Box
FTNH6200	200mg/6mL	30/Box
FTNH6500	500mg/6mL	30/Box
FTNH61000	1000mg/6mL	30/Box
FTNH121000	1000mg/12mL	20/Box
FTNH122000	2000mg/12mL	20/Box

PRS Propylsulfonic Acid

Extracting weak bases in biological fluids



PRS is a strong cation exchange sorbent with excellent retention for weakly basic compounds.

PRS shows unique selectivity owing to the absence of non-polar interactions. It is an alternative to SCX if non-polar components in samples couldn't be removed by using the latter.

- High recoveries for pyridinic compounds
- Simple retention mechanism, no non-polar interactions

Specifications

Carbon content: 4.5%
Surface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

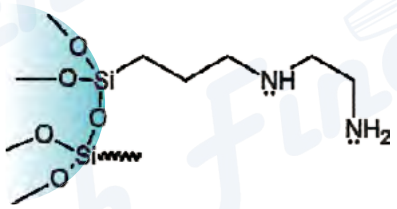
- Determination of drugs and their metabolites in biological fluids
- Determination of basic pollutants such as malachite green, gentian violet, tetrodotoxin, and methylene blue

Order Information

Cat.#	Format	Qty.
FTPRS1100	100mg/1mL	100/Box
FTPRS3200	200mg/3mL	50/Box
FTPRS3500	500mg/3mL	50/Box
FTPRS6500	500mg/6mL	30/Box
FTPRS61000	1000mg/6mL	30/Box
FTPRS121000	1000mg/12mL	20/Box

PSA Primary-Secondary Amine

Extracting strong acids, polar compounds and metal ions



PSA sorbent is similar to NH_2 sorbent, offering both normal phase and anion exchange retention mechanisms. Owing to the existence of primary and secondary amino groups (with pKa values 10.1 and 10.9, respectively), PSA has higher ion exchange capabilities and strong hydrogen bonding. Besides, PSA is able to form chelate complexes with some metal ions and used to enrich them.

- Higher capabilities than NH sorbent 2
- Effectively removing acidic interferences in food samples

Specifications

Carbon content: 8%
Surface area: 480 m^2/g
Particle size: 50 - 75 μm
Pore size: 70 Å

Applications

- Determination of sedatives in body fluids
- Removal of interferences such as fatty acids, organic acids, pigments, sugars and metal ions

Order Information

Cat.#	Format	Qty.
FTPSA1100	100mg/1mL	100/Box
FTPSA3100	100mg/3mL	50/Box
FTPSA3200	200mg/3mL	50/Box
FTPSA3500	500mg/3mL	50/Box
FTPSA6200	200mg/6mL	30/Box
FTPSA6500	500mg/6mL	30/Box
FTPSA61000	1000mg/6mL	30/Box
FTPSA121000	1000mg/12mL	20/Box
FTPSA122000	2000mg/12mL	20/Box

GCB Graphitized Carbon Black

Extracting herbicides in drinking water

Carb GCB is composed of sheet-like, nonporous graphitized carbon black with aromatic six-member ring structure and positive charges. It has reversed phase and ion exchange retention mechanisms, retaining nonpolar compounds, such as organochlorine pesticides, as well as polar compounds, such as surfactants.

Owing to its sheet-like, nonporous structure, Carb-GCB enables higher extraction speeds and capabilities than silica-based sorbents.

- Higher extraction speed and capability
- Suitable for large volume samples

Specifications

Surface area: 100 m^2/g
Particle size: 100-300 mesh

Applications

- Removal of pigments in vegetables and fruits
- Determination of organochlorine pesticides, ethyl carbamate, alkaloids and mycotoxins in water, beverages, vegetables and seafood

Order Information

Cat.#	Format	Qty.
FTGCB1100	100mg/1mL	100/Box
FTGCB3200	200mg/3mL	50/Box
FTGCB3500	500mg/3mL	50/Box
FTGCB6500	500mg/6mL	30/Box
FTGCB61000	1000mg/6mL	30/Box
FTGCB121000	1000mg/12mL	20/Box
FTGCB122000	2000mg/12mL	20/Box

Florisil Pesticide Grade Florisil

Extracting multiresidual pesticides

Pesticide grade Florisil is a selective adsorbent comprised of synthetic magnesium-silica gel activated at 675 ˚C. It's strongly polar, extremely active, highly porous and able to retain low to moderately polar compounds such as chlorine-, nitrogen- and phosphorus-containing pesticides.

In analysis of multiresidual pesticides Florisil has proven to be an effective, low cost choice, and adopted in the U.S. EPA method 608.

- Good retention for most pesticides
- Suitable for viscous samples
- Economical

Specifications

Particle size: 150-250 μm

Applications

- Determination of chlorine-, nitrogen- and phosphorus -containing pesticides in foods.
- Determination of mycotoxins in foods.

◆ Order Information

Cat.#	Format	Qty.
FTFL1100	100mg/1mL	100/Box
FTFL3200	200mg/3mL	50/Box
FTFL3500	500mg/3mL	50/Box
FTFL6500	500mg/6mL	30/Box
FTFL61000	1000mg/6mL	30/Box
FTFL121000	1000mg/12mL	20/Box
FTFL122000	2000mg/12mL	20/Box

ALA / ALN / ALB Alumina

Extracting aromatic amines

Alumina is an extremely polar sorbent, like silica. Its abundance of surface electrons induce-interaction with aromatic rings, giving rise to strongly polar retention and Lewis acidity. Compared with unbonded silica, alumina is more stable in high pH conditions and suitable for extracting aromatic amines.

Alumina is available in acidic (ALA), neutral (ALN) and basic (ALB) formulations from which you can choose an appropriate one according to your specific applications.

- Good retention for electron-rich compounds such as aromatic amines
- More stable than un-bonded silica in high pH conditions
- High capabilities

Specifications

Surface area: >150 m^2/g
pH: 4.0 for ALA, 7.0 for ALN, 9.5 for ALB

Applications

- Analysis of amines, phenols and glycosides in biological matrices, such as pyrocatechol
- Determination of residual pesticides, veterinary drugs and pollutants in vegetables and fruits, such as Sudan dyes, malachite green and organophosphorus pesticides
- Determination of synthetic pigments in water
- Analysis of oil components

◆ Order Information

ALA – Acidic Alumina

Cat.#	Format	Qty.
FTALA1100	100mg/1mL	100/Box
FTALA3200	200mg/3mL	50/Box
FTALA3500	500mg/3mL	50/Box
FTALA6500	500mg/6mL	30/Box
FTALA61000	1000mg/6mL	30/Box
FTALA121000	1000mg/12mL	20/Box
FTALA122000	2000mg/12mL	20/Box

ALN – Neutral Alumina

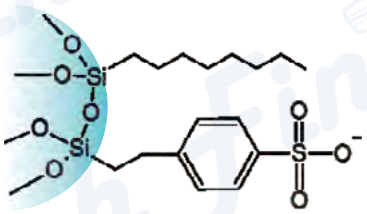
Cat.#	Format	Qty.
FTALN1100	100mg/1mL	100/Box
FTALN3200	200mg/3mL	50/Box
FTALN3500	500mg/3mL	50/Box
FTALN6500	500mg/6mL	30/Box
FTALN61000	1000mg/6mL	30/Box
FTALN121000	1000mg/12mL	20/Box
FTALN122000	2000mg/12mL	20/Box

ALB – Basic Alumina

Cat.#	Format	Qty.
FTALB1100	100mg/1mL	100/Box
FTALB3200	200mg/3mL	50/Box
FTALB3500	500mg/3mL	50/Box
FTALB6500	500mg/6mL	30/Box
FTALB61000	1000mg/6mL	30/Box
FTALB121000	1000mg/12mL	20/Box
FTALB122000	2000mg/12mL	20/Box

C8/SCX Octyl/Strong Cation Exchange

Extracting basic drugs in biological fluids



C8/SCX is composed of silica gel bounded with octyl and phenylsulfonic acid groups at a specific ratio. It's a mixed-mode sorbent with two retention mechanisms: octyl groups provide moderately hydrophobic interactions, phenylsulfonic acid groups provide strong cation exchange.

C8 SCX will be a better choice if very strong adsorption in C18, C8 or SCX packing results in difficult elution of some analytes.

- Moderate retention, avoiding extremely strong adsorption of some compounds
- Ideal for complicated samples such as blood and urine

Specifications

Surface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

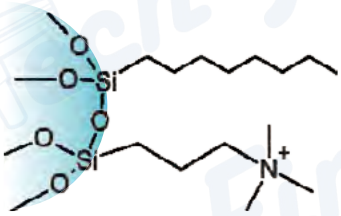
- Determination of drugs and their metabolites in biological fluids
- Determination of drugs of abuse such as cocaine, acetylcodeine, morphine and ketamine

◆ Order Information

Cat.#	Format	Qty.
FTC8SCX1100	100mg/1mL	100/Box
FTC8SCX3200	200mg/3mL	50/Box
FTC8SCX3500	500mg/3mL	50/Box
FTC8SCX6500	500mg/6mL	30/Box
FTC8SCX61000	1000mg/6mL	30/Box
FTC8SCX121000	1000mg/12mL	20/Box
FTC8SCX122000	2000mg/12mL	20/Box

C8/SAX Octyl/Strong Anion Exchange

Extracting acidic drugs in biological fluids



C8/SAX is composed of silica gel bounded with octyl and quaternary ammonium groups at a specific ratio. It's a mixed-mode sorbent with two retention mechanisms: octyl groups provide moderately hydrophobic interactions, quaternary ammonium groups provide strong anion exchange.

C8 SAX will be a better choice if very strong adsorption in C18, C8 or SAX packing results in difficult elution of some analytes.

- Moderate retention, avoiding extremely strong adsorption of some compounds
- Ideal for complicated samples such as blood and urine

Specifications

Suface area: 480 m^2/g
Particle size: 40 - 75 μm
Pore size: 70 Å

Applications

- Determination of drugs and their metabolites in biological fluids, such as barbiturates
- Determination of drugs of abuse such as THC

◆ Order Information

Cat.#	Format	Qty.
FTC8SAX1100	100mg/1mL	100/Box
FTC8SAX3200	200mg/3mL	50/Box
FTC8SAX3500	500mg/3mL	50/Box
FTC8SAX6500	500mg/6mL	30/Box
FTC8SAX61000	1000mg/6mL	30/Box
FTC8SAX121000	1000mg/12mL	20/Box
FTC8SAX122000	2000mg/12mL	20/Box

Carb-GCB/NH_2

Graphitized Carbon Black/Aminopropyl Bilayer

Cleanup of samples in multiresidual pesticide analysis

Carb GCB/NH_2 combines the merits of both Carb-GCB and NH_2 sorbents and is able to remove interfering compositions such as pigments, sterols and fatty acids in food samples, making it an effective packing for cleaning samples up in multiresidual pesticide analysis.

- Ultrathin frits between two sorbent layers promising uniform flow
- Capable of removing interferences as thoroughly as possible

Specifications for Carb-GCB:

Surface area: 100 m^2/g
Particle size: 100-300 mesh

Specifications for NH_2

Carbon content: 4.5%
Surface area: 480 m^2/g
Particle size: 40-75 μm
Pore size: 70 Å

Applications

- Analysis of multiresidual pesticides in foods

Order Information

Cat.#	Format	Qty.
FTNHGC32525	250mg/250mg/3mL	50/Box
FTNHGC655	500mg/500mg/6mL	30/Box
FTNHGC653	300mg/500mg/6mL	30/Box

Carb-GCB/PSA

Graphitized Carbon Black/ Primary-Secondary Amine Bilayer

Cleanup of samples in multiresidual pesticide analysis

Carb GCB/PSA is a sorbent similar to Carb-GCB/NH_2 and suitable for cleaning samples up in multiresidual pesticide analysis.

Due to its additional secondary amino groups, PSA has higher ion exchange capability and ability to chelate some metal ions, thus providing Carb-GCB/PSA with unique selectivity different from Carb-GCB/NH_2.

- Ultrathin frits between two sorbent layers promising uniform flow
- Capable of removing interferences as thoroughly as possible
- Higher capabilities than Carb GCB NH_2

Specifications for Carb-GCB

Surface area: 100 m^2/g
Particle size: 100-300 mesh

Specifications for PSA

Carbon content: 8%
Surface area: 480 m^2/g
Particle size: 50-75 μm
Pore size: 70 Å

Applications

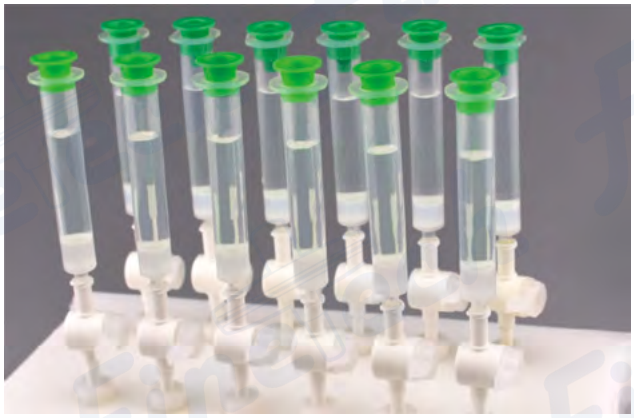
- Analysis of multi-residual pesticides in foods
- Determination of residual neonicotinoid pesticides in soil, fruit and wine samples

Order Information

Cat.#	Format	Qty.
FTPSGC32525	250mg/250mg/3mL	50/Box
FTPSGC655	500mg/500mg/6mL	30/Box
FTPSGC653	300mg/500mg/6mL	30/Box

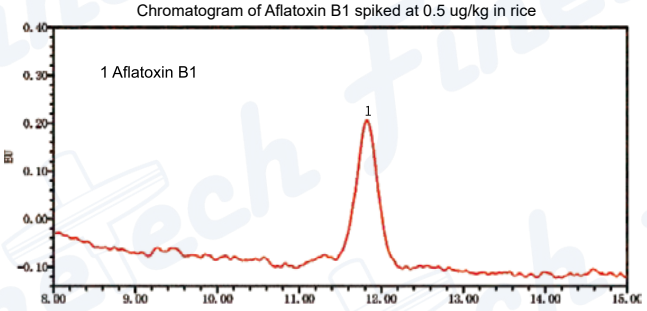
Aflatoxin Immunoaffinity Columns

Aflatoxin is a highly toxic substance, its harmfulness lies in the destructive effect on human and animal liver tissues. Aflatoxin Immunoaffinity Columns are based on the antigen-antibody specific reaction, binding the antibody to the gel to combine with aflatoxin specificity, thereby achieving the effect of separation and purification.

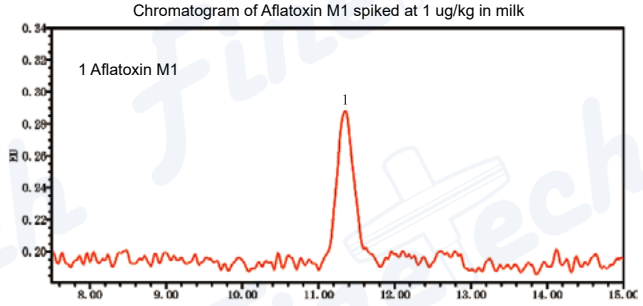


Applications

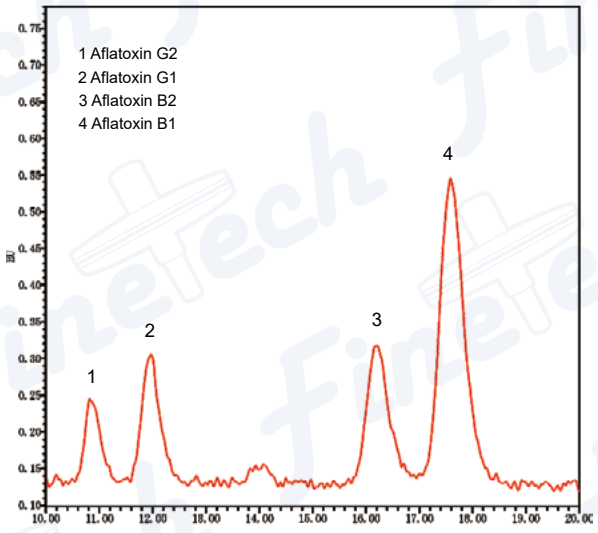
Chromatogram of Aflatoxin B1 spiked at 0.5 ug/kg in rice



Chromatogram of Aflatoxin M1 spiked at 1 ug/kg in milk



Chromatogram of Aflatoxin G1,
G2, B1, B2 spiked at 0.25 ug/kg in rice



Order Information

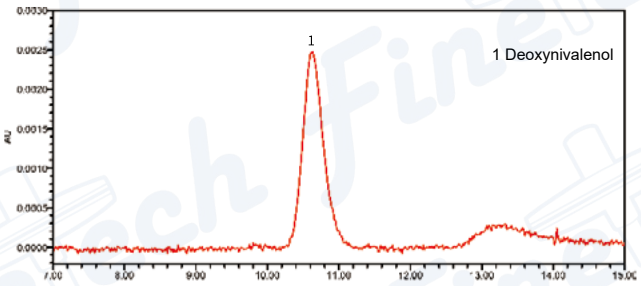
Cat.#	Description	Qty.
TAIC101	Aflatoxin B1,B2,G1,G2, 1mL	25/Box
TAIC103	Aflatoxin B1,B2,G1,G2, 3mL	20/Box
AB1IC101	Aflatoxin B1, 1mL	25/Box
AB1IC103	Aflatoxin B1, 3mL	20/Box
AM1IC101	Aflatoxin M1, 1mL	25/Box
AM1IC103	Aflatoxin M1, 3mL	20/Box

Deoxynivalenol Immunoaffinity Columns

Deoxynivalenol is mainly distributed in wheat, barley, corn and other cereal seeds, and has a certain harmful effect on human body, it is three-level carcinogen in the EU classification standard. Deoxynivalenol Immunoaffinity Columns can selectively separate deoxynivalenol from the sample by the specific binding of antibody and antigen to achieve good purification effect.

Applications

Chromatogram of Deoxynivalenol spiked at 1.0 mg/kg in soy sauce



Order Information

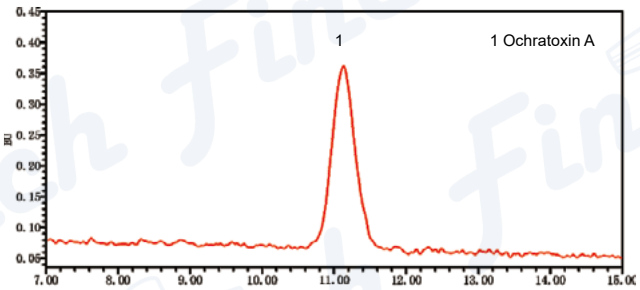
Cat.#	Description	Qty.
DIC101	Deoxynivalenol, 1mL	25/Box
DIC103	Deoxynivalenol, 3mL	20/Box

Ochratoxin A Immunoaffinity Columns

Ochratoxin A is very common in mildewed grain and feedstuffs. It comes from the aspergillus and penicillium on various crops (wheat, corn, barley, oats, rye, rice and millet), peanuts, vegetables (beans), etc., which cause enormous harm to the kidneys and livers of human and animal. Ochratoxin A Immunoaffinity Columns can selectively adsorb the Ochratoxin A from sample to purify ochratoxin A in the sample solution.

Applications

Chromatogram of Ochratoxin A spiked at 25 ug/kg in rice



Order Information

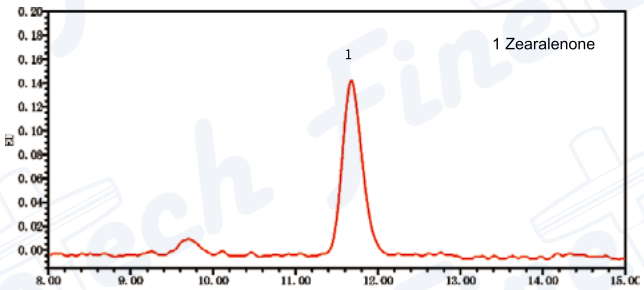
Cat.#	Description	Qty.
OIC101	Ochratoxin A, 1mL	25/Box
OIC103	Ochratoxin A, 3mL	20/Box

Zearalenone Immunoaffinity Columns

Zearalenone is widely found in mildewed corn, sorghum, wheat, oats, barley, other cereal crops and milk, it is the most widely contaminated Fusarium toxin in the world. It has estrogenic effect and mainly act on reproductive system and enormous harm to human and animals due to the teratogenic effect. Zearalenone Immunoaffinity Columns can be used to extract and enrich zearalenone from samples which enable very targeted purification performance.

Applications

Chromatogram of Zearalenone spiked at 1 mg/kg in corn flour



Order Information

Cat.#	Description	Qty.
ZIC101	Zearalenone, 1mL	25/Box
ZIC03	Zearalenone, 3mL	20/Box

T-2 Toxin Immunoaffinity Columns

T-2 toxin is a mycotoxin produced by various Fusariums, mainly contaminates wheat, barley, corn and other food crops and their products, which has a greater hazard to human health and animal husbandry. T-2 Toxin Immunoaffinity Columns can selectively adsorb T-2 toxin in the sample solution to specifically purify T-2 toxin in the sample solution. The purified sample solution can be directly used for detection in liquid phase.

Order Information

Cat.#	Description	Qty.
2TIC2101	T-2 toxin, 1mL	25/Box
2TIC2101	T-2 toxin, 3mL	20/Box

Fumonisin FB Immunoaffinity Column

Fumonisin FB is a mycotoxin, which is a watersoluble metabolite produced by Fusarium moniliforme. It is a kind of diester compound composed by different polyhydric alcohols and glycerol tricarboxylic acid. Fumonisin has FA1, FA2, FB1, FB2, FB3 etc, FB1 is the main component.

Order Information

Cat.#	Description	Qty.
FIC101	Fumonisin FB, 1mL	25/Box
FIC103	Fumonisin FB, 3mL	20/Box