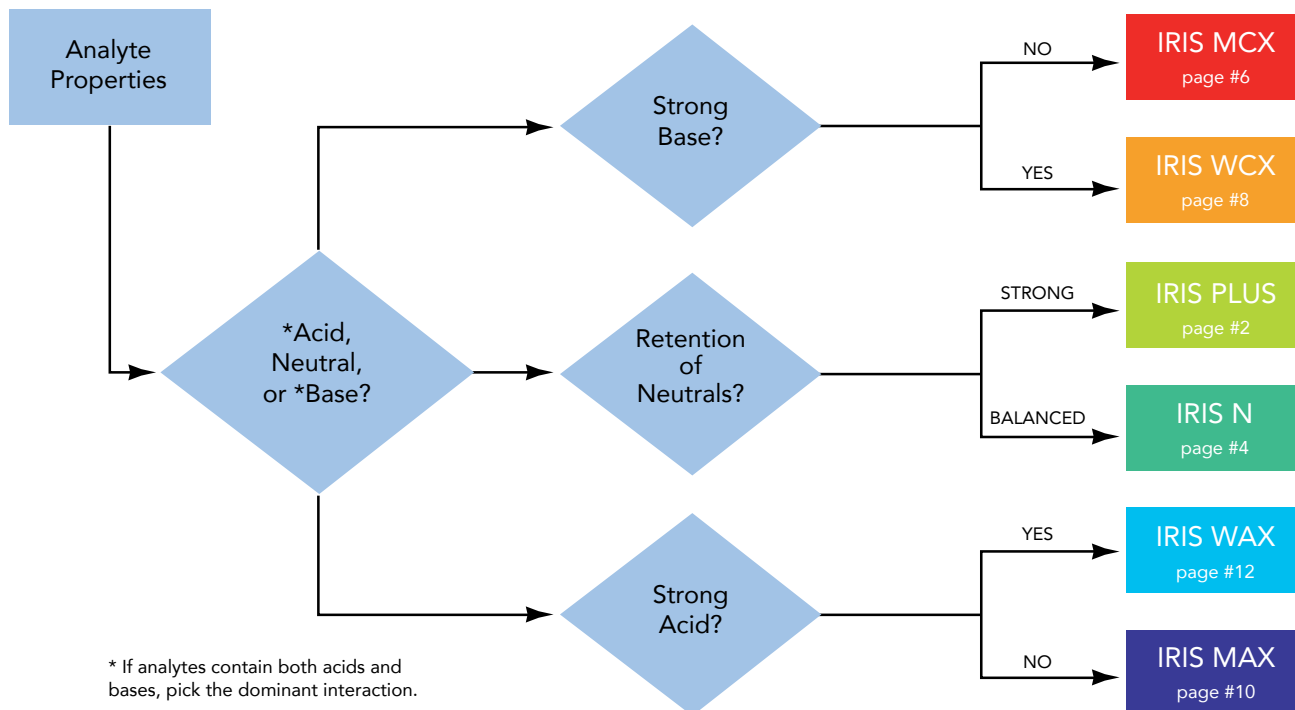


IRIS™ Sorbent Selection Guidelines

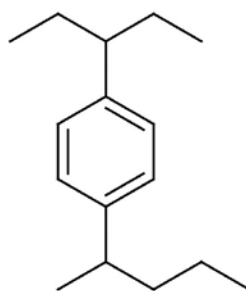


Sample Type and Sorbent Mass Guidelines

Industry	Typical Example	Typical Sample Volume	Recommended Sorbent Mass	Recommended Reservoir
Environmental	Drinking water, Surface water, Waste water, Soil	0.1 L to 1L	200 mg	6 mL
Food & Agriculture	Food homogenate from Fish, Fruit, Meat, Poultry, Wheat	1 mL to 3 mL	60 mg	3 mL
Clinical & Bioanalysis	Blood, Plasma, Urine diluted	0.4 mL to 3 mL	30 mg	1 mL

IRIS Sorbent Mass	Minimum Recommended Elution Volume	Typical Elution Volume
500 mg	5 mL	10 mL to 25 mL
200 mg	2 mL	3 mL to 10 mL
60 mg	600 µL	1.2 mL to 3 mL
30 mg	300 µL	0.6 mL to 2 mL
10 mg	100 µL	0.3 mL to 1 mL

* Elution volumes depend on the chemical nature of the analyte, its relative concentration in the matrix, the chemistry of the solution solvent and the sorbent bed mass. Please be advised that the tables above provide general guidelines. Please contact our technical support team for specific method development support or guidelines for specific applications.



- 100% Divinylbenzene (DVB) phase
- Pore Size: 80Å
- Surface area: ~700 m²/g
- Available in 25-35µm or 55-65µm particle sizes
- Available in various cartridge sizes and 96-well plate formats

The IRIS PLUS Solid Phase Extraction products are a great replacement for your current C18 or PS-DVB SPE cartridges. The cartridges and well plates are manufactured using 100% Divinylbenzene packing materials.

IRIS PLUS SPE Cartridges

Part No.	Description	Particle Size	Qty (Box)
IR34460	IRIS PLUS 10mg/1mL	25-35µm	100
IR34461	IRIS PLUS 30mg/1mL	25-35µm	100
IR34462	IRIS PLUS 30mg/3mL	25-35µm	100
IR34446	IRIS PLUS 60mg/3mL	25-35µm	100
IR34264	IRIS PLUS 100mg/3mL	25-35µm	100
IR34445	IRIS PLUS 200mg/6mL	25-35µm	30
IR34266	IRIS PLUS 500mg/6mL	25-35µm	30
IR34488	IRIS PLUS 1gram/6mL	25-35µm	10
IR34468	IRIS PLUS 10mg/1mL	55-65µm	100
IR34469	IRIS PLUS 30mg/1mL	55-65µm	100
IR34472	IRIS PLUS 60mg/3mL	55-65µm	100
IR34475	IRIS PLUS 200mg/6mL	55-65µm	30
IR34476	IRIS PLUS 500mg/6mL	55-65µm	30

IRIS PLUS SPE 96-well Plates

Part No.	Description	Particle Size	Qty (Box)
IR96341	IRIS PLUS 96-well 10mg/1mL	25-35µm	1
IR96343	IRIS PLUS 96-well 30mg/1mL	25-35µm	1
IR96345	IRIS PLUS 96-well 60mg/1mL	25-35µm	1
IR96347	IRIS PLUS 96-well 30mg/2mL	25-35µm	1
IR96348	IRIS PLUS 96-well 60mg/2mL	25-35µm	1
IR96357	IRIS PLUS 96-well 30mg/1ml	55-65µm	1
IR96358	IRIS PLUS 96-well 60mg/1ml	55-65µm	1

25-35µm particle size for vacuum or positive pressure elution
55-65µm particle size for gravity elution



Features & Benefits

- Higher Recoveries – due to the highly retentive nature of the DVB packing material
- Lower Background Signals – proprietary cleaning process for ultrapure resins decreasing background signals
- Durability – stability at pH extremes of 0-14
- Improved Detection Limits and Reduced Drying Time – using reduced resin volumes
- Eliminate Matrix Ion Suppression – clean sample extracts reduce or eliminate matrix ion suppression
- IRIS PLUS – most hydrophobic reverse phase available
- Excellent for environmental samples

IRIS PLUS APPLICATION

Sorbent: IRIS PLUS - 200mg/6mL
Part Number: IR34445
Solution Conc: 10 µg/mL in H₂O

Recovery Rates:

Chrysene Benzo(b)Fluoranthene
Benzo(a) Benzo(j)Fluoranthene
Anthracene Benzo(k)Fluoranthene

104.8% 106.5%

Benzo(a)pyrene Indeno(1,2,3-cd)pyrene
Benzo(e)pyrene Benzo(g,h,i)perylene
Dibenz(a,h)anthracene

106.5% 98.7%

Polycyclic aromatic hydrocarbons - PAH

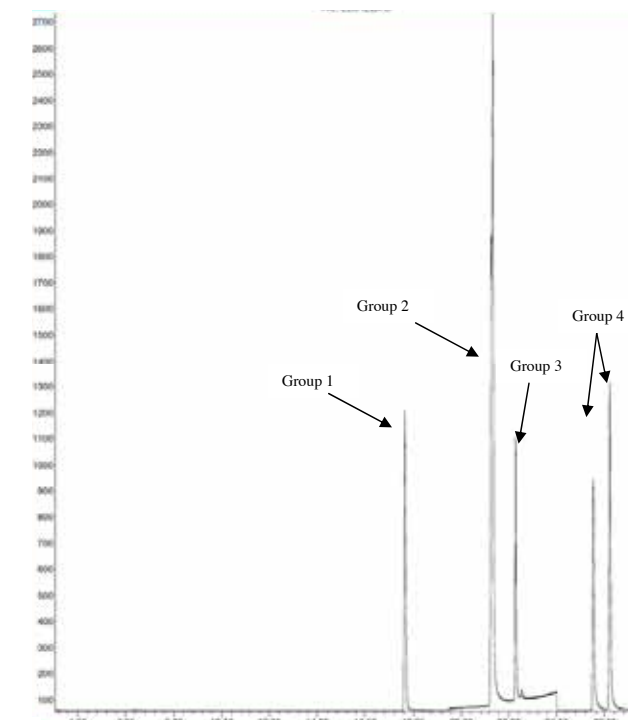
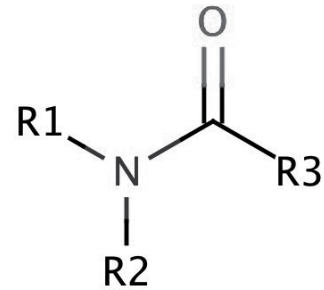
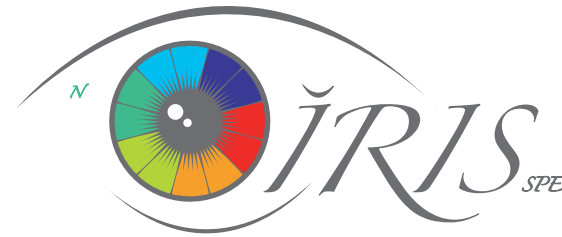


Figure 1: GCMS Chromatogram



- Polyamide sorbent - HLB type phase
- Pore size: 80Å
- Surface area: ~500m²/g
- Available in 25-35µm or 55-65µm particle sizes
- Available in various cartridge sizes and 96-well plate formats

This novel polyamide polymer chemistry provides highly hydrophilic/lipophilic balance making it the SPE material with the widest applicability. The outstanding reverse phase characteristics of this material are only one part of this material's success. This phase chemistry offers multiple interaction mechanisms and can be used for both reverse phase and normal phase solid phase extraction.

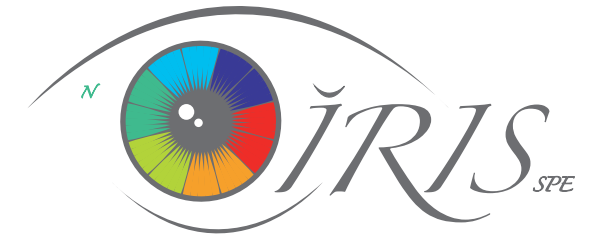
IRIS N SPE Cartridges

Part No.	Description	Particle Size	Qty (Box)
IR44460	IRIS N 10mg/1mL	25-35µm	100
IR44461	IRIS N 30mg/1mL	25-35µm	100
IR44462	IRIS N 30mg/3mL	25-35µm	100
IR44446	IRIS N 60mg/3mL	25-35µm	100
IR44264	IRIS N 100mg/3mL	25-35µm	100
IR44445	IRIS N 200mg/6mL	25-35µm	30
IR44266	IRIS N 500mg/6mL	25-35µm	30
IR44467	IRIS N 1gram/6mL	25-35µm	10
IR44468	IRIS N 10mg/1mL	55-65µm	100
IR44469	IRIS N 30mg/1mL	55-65µm	100
IR44472	IRIS N 60mg/3mL	55-65µm	100
IR44475	IRIS N 200mg/6mL	55-65µm	30
IR44476	IRIS N 500mg/6mL	55-65µm	30

IRIS N SPE 96-well Plates

Part No.	Description	Particle Size	Qty (Box)
IR96441	IRIS N 96-well 10mg/1mL	25-35µm	1
IR96443	IRIS N 96-well 30mg/1mL	25-35µm	1
IR96445	IRIS N 96-well 60mg/1mL	25-35µm	1
IR96447	IRIS N 96-well 30mg/2mL	25-35µm	1
IR96448	IRIS N 96-well 60mg/2mL	25-35µm	1
IR96451	IRIS N 96-well 30mg/1ml	55-65µm	1
IR96453	IRIS N 96-well 60mg/1ml	55-65µm	1

25-35µm particle size for vacuum or positive pressure elution
55-65µm particle size for gravity elution



Features & Benefits

- Localized Hydrophilic/Lipophilic Base (HLB type phase) – optimal analyte/resin contact and retention for improved wettability
- Polyamide Stationary Phase – reverse phase mode with up to 100% water or normal phase mode with up to 100% organic solvents.
- Widest Applicability

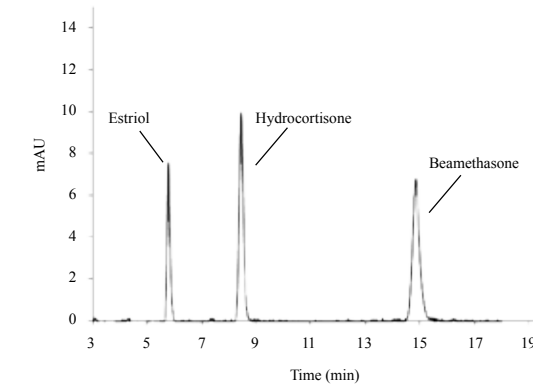
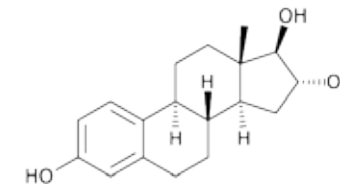
IRIS N APPLICATION

Sorbent: IRIS N - 30mg/1mL
Part Number: IR44461
Solution Conc: 6 µg/mL in H₂O

Recovery Rates:

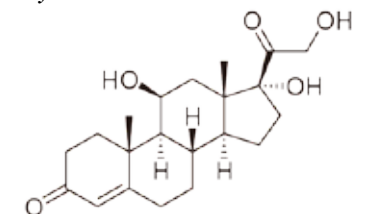
Estriol	Hydrocortisone	Betamethasone
Run 1 109.5%	Run 1 104.4%	Run 1 100.3%
Run 2 104.1%	Run 2 102.6%	Run 2 100.8%
Run 3 109.3%	Run 3 103.8%	Run 3 100.0%

Estriol

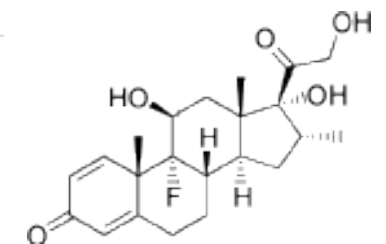


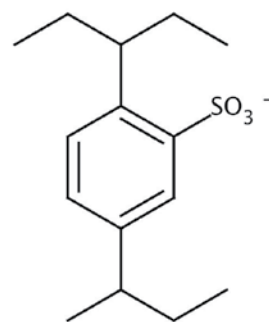
Estriol, Hydrocortisone, Betamethasone

Hydrocortisone



Betamethasone





- Sulfonated hydrophilic on DVB support
- Pore size: 80Å
- Ion-Exchange capacity: ~1 meq/g
- pKa <1
- Available in 25-35µm or 55-65µm particle sizes
- Available in various cartridge sizes and 96-well plate formats

IRIS MCX is a water-wettable sulfonated divinylbenzene polymer phase for both cation exchange and reverse phase extraction. IRIS MCX allows for easy method development, through its dual retention qualities, for a wide range of basic and neutral compounds. IRIS MCX shows excellent retention for essentially all of the common basic drugs of abuse and similar amine containing compounds. The phase is stable over the complete pH range (0-14) and can be used with nearly any solvent, allowing the use of a wide range of extraction solvents.

IRIS MCX SPE Cartridges

Part No.	Description	Particle Size	Qty (Box)
IR54460	IRIS MCX 10mg/1mL	25-35µm	100
IR54461	IRIS MCX 30mg/1mL	25-35µm	100
IR54462	IRIS MCX 30mg/3mL	25-35µm	100
IR54446	IRIS MCX 60mg/3mL	25-35µm	100
IR54264	IRIS MCX, 100mg/3mL	25-35µm	100
IR54445	IRIS MCX 200mg/6mL	25-35µm	30
IR54266	IRIS MCX 500mg/6mL	25-35µm	30
IR54467	IRIS MCX 1gram/6mL	25-35µm	10
IR54468	IRIS MCX 10mg/1mL	55-65µm	100
IR54469	IRIS MCX 30mg/1mL	55-65µm	100
IR54472	IRIS MCX 60mg/3mL	55-65µm	100
IR54475	IRIS MCX 200mg/6mL	55-65µm	30
IR54476	IRIS MCX 500mg/6mL	55-65µm	30

IRIS MCX SPE 96-well Plates

Part No.	Description	Particle Size	Qty (Box)
IR96541	IRIS MCX 96-well 10mg/1mL	25-35µm	1
IR96543	IRIS MCX 96-well 30mg/1mL	25-35µm	1
IR96545	IRIS MCX 96-well 60mg/1mL	25-35µm	1
IR96547	IRIS MCX 96-well 30mg/2mL	25-35µm	1
IR96548	IRIS MCX 96-well 60mg/2mL	25-35µm	1
IR96551	IRIS MCX 96-well 30mg/1ml	55-65µm	1
IR96553	IRIS MCX 96-well 60mg/1ml	55-65µm	1

25-35µm particle size for vacuum or positive pressure elution
55-65µm particle size for gravity elution



Features & Benefits

- Sulfonated Hydrophilic Stationary Phase – allows for cation exchange and reverse phase separations
- 100% DVB – no swelling, increased retention, excellent flow properties and pH stability
- Excellent Wettability – even after drying, due to hydrophilic/hydrophobic balance
- Improved Flow Characteristics

IRIS MCX APPLICATION

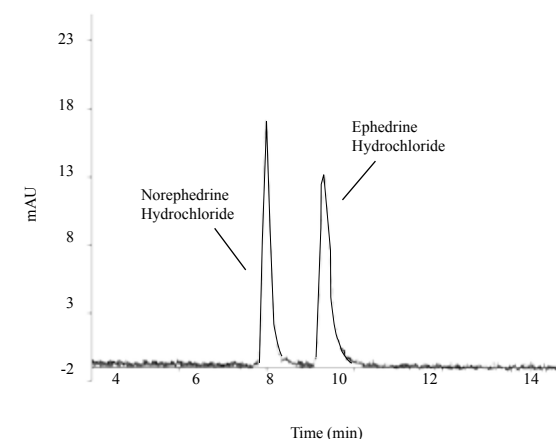
Sorbent: IRIS MCX - 30mg/1mL
Part Number: IR54461
Solution Conc: 50 µg/mL in H₂O 0.1% Formic Acid

Norephedrine & Ephedrine Hydrochloride

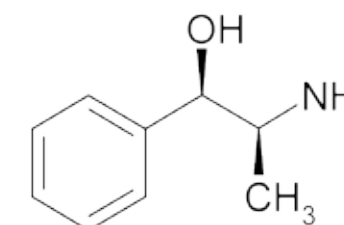
Recovery Rates:

Norephedrine Hydrochloride	Ephedrine Hydrochloride
Run 1 94.2%	Run 1 94.7%
Run 2 91.8%	Run 2 92.7%
Run 3 93.4%	Run 3 96.4%

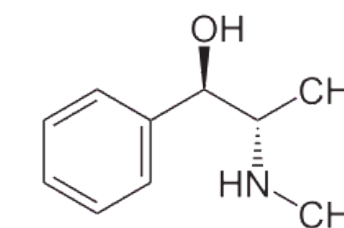
Note 1: After wash step cartridge was dried for 1 minute using vac. The collected elute solution was placed in a 2 ml volumetric and brought to the mark with H₂O (0.1% formic acid).

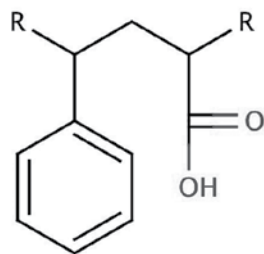


Norephedrine Hydrochloride



Ephedrine Hydrochloride





- Organic acid on DVB support
- Pore size: 80Å
- Ion-Exchange capacity: ~1 meq/g
- pKa ~5
- Available in 25-35µm or 55-65µm particle sizes
- Available in various cartridge sizes and 96-well plate formats

IRIS WCX is a weak cation exchange divinylbenzene polymer phase. IRIS WCX eliminates the guesswork commonly found in lengthy method development associated with strong bases such as quaternary amines. This phase utilizes the chemical functionality of a carboxylic acid. When the phase is negatively charged, it retains strong bases such as quaternary amines and releases them when neutral. IRIS WCX has repeatedly proven consistency and reliability, reducing the need for time consuming and costly retesting.

IRIS WCX SPE Cartridges

Part No.	Description	Particle Size	Qty (Box)
IR84012	IRIS WCX 10mg/1mL	25-35µm	100
IR84013	IRIS WCX 30mg/1mL	25-35µm	100
IR84014	IRIS WCX 60mg/1mL	25-35µm	100
IR84016	IRIS WCX 60mg/3mL	25-35µm	100
IR84019	IRIS WCX 200mg/6mL	25-35µm	30
IR84020	IRIS WCX 500mg/6mL	25-35µm	30
IR84021	IRIS WCX 1gram/6mL	25-35µm	10
IR84001	IRIS WCX 10mg/1mL	55-65µm	100
IR84002	IRIS WCX 30mg/1mL	55-65µm	100
IR84005	IRIS WCX 60mg/3mL	55-65µm	100
IR84008	IRIS WCX 200mg/6mL	55-65µm	30
IR84009	IRIS WCX 500mg/6mL	55-65µm	30

IRIS WCX SPE 96-well Plates

Part No.	Description	Particle Size	Qty (Box)
IR97008	IRIS WCX 96-well 10mg/1mL	25-35µm	1
IR97010	IRIS WCX 96-well 30mg/1mL	25-35µm	1
IR97012	IRIS WCX 96-well 60mg/1mL	25-35µm	1
IR97014	IRIS WCX 96-well 30mg/2mL	25-35µm	1
IR97015	IRIS WCX 96-well 60mg/2mL	25-35µm	1
IR97002	IRIS WCX 96-well 30mg/1ml	55-65µm	1
IR97004	IRIS WCX 96-well 60mg/1ml	55-65µm	1

25-35µm particle size for vacuum or positive pressure elution
55-65µm particle size for gravity elution



Features & Benefits

- Organic Acid Phase – allows for tunable selectivity for strong bases
- 100% DVB – no swelling, increased retention, excellent flow properties and pH stability
- Retain and Release – easy separation of strong bases
- Uniquely Selective – fast and efficient sample preparation and purification
- Improved Flow Characteristics

IRIS WCX APPLICATION

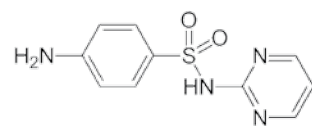
Sorbent: IRIS WCX - 30mg/1mL
Part Number: IR84013
Solution Conc: 5 µg/mL in H₂O

Recovery Rates:

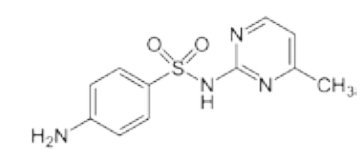
	Sulfadiazine	Sulfathiazole	Sulfamerazine	Sulfamethazine
Run 1	98.8%	95.0%	99.9%	99.5%
Run 2	102.2%	98.1%	100.5%	99.4%
Run 3	98.2%	93.8%	95.6%	96.5%

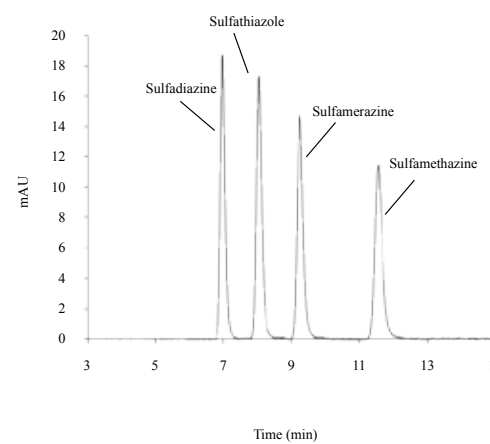
Sulfonamides

Sulfadiazine

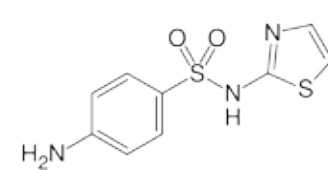


Sulfamerazine

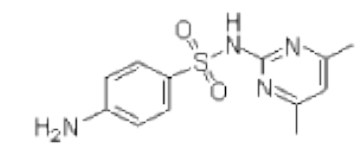


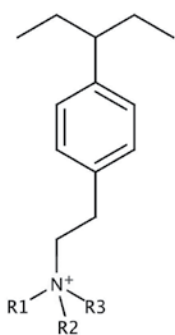


Sulfathiazole



Sulfamethazine





- Quaternary amine phase on DVB support
- Pore size: 80Å
- Ion-Exchange capacity: ~0.1 meq/g
- pKa >18
- Available in 25-35µm or 55-65µm particle sizes
- Available in various cartridge sizes and 96-well plate formats

IRIS MAX is a water-wettable quaternary amine divinylbenzene polymer phase designed for both anion exchange and reverse phase extraction. As a result of its bifunctionality, IRIS MAX produces outstanding retention for charged and neutral compounds. It is excellent for compounds containing an organic acid or similar ionizable functional groups. The phase is stable over the complete pH range (0-14) and can be used with nearly any solvent permitting the use of a wide range of extraction solvents.

IRIS MAX SPE Cartridges

Part No.	Description	Particle Size	Qty (Box)
IR64460	IRIS MAX 10mg/1mL	25-35µm	100
IR64461	IRIS MAX 30mg/1mL	25-35µm	100
IR64462	IRIS MAX 30mg/3mL	25-35µm	100
IR64446	IRIS MAX 60mg/3mL	25-35µm	100
IR64264	IRIS MAX, 100mg/3mL	25-35µm	100
IR64445	IRIS MAX 200mg/6mL	25-35µm	30
IR64266	IRIS MAX 500mg/6mL	25-35µm	30
IR64467	IRIS MAX 1gram/6mL	25-35µm	10
IR64468	IRIS MAX 10mg/1mL	55-65µm	100
IR64469	IRIS MAX 30mg/1mL	55-65µm	100
IR64472	IRIS MAX 60mg/3mL	55-65µm	100
IR64475	IRIS MAX 200mg/6mL	55-65µm	30
IR64476	IRIS MAX 500mg/6mL	55-65µm	30

IRIS MAX SPE 96-well Plates

Part No.	Description	Particle Size	Qty (Box)
IR96641	IRIS MAX 96-well 10mg/1mL	25-35µm	1
IR96643	IRIS MAX 96-well 30mg/1mL	25-35µm	1
IR96645	IRIS MAX 96-well 60mg/1mL	25-35µm	1
IR96647	IRIS MAX 96-well 30mg/2mL	25-35µm	1
IR96648	IRIS MAX 96-well 60mg/2mL	25-35µm	1
IR96651	IRIS MAX 96-well 30mg/1ml	55-65µm	1
IR96653	IRIS MAX 96-well 60mg/1ml	55-65µm	1

25-35µm particle size for vacuum or positive pressure elution
55-65µm particle size for gravity elution



Features & Benefits

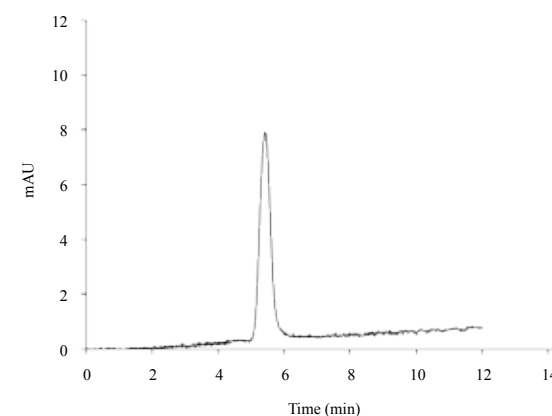
- Quaternary Amine Phase – allows for anion exchange and reverse phase separations
- 100% DVB – no swelling, increased retention, excellent flow properties and pH stability
- Excellent Wettability – even after drying, due to hydrophilic/hydrophobic balance
- Improved Flow Characteristics

IRIS MAX APPLICATION

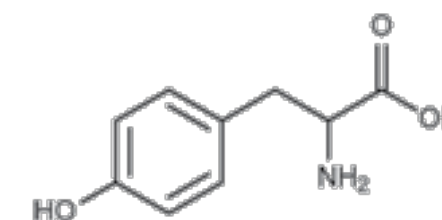
Sorbent: IRIS MAX - 30mg/1mL
Part Number: IR64461
Solution Conc: 40 µg/mL in H₂O

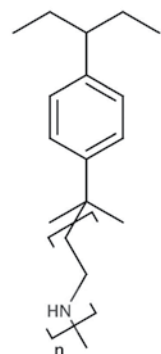
DL-Tyrosine

Recovery Rates: Run 1 92.9%
Run 2 90.8%
Run 3 93.1%



DL-Tyrosine





- Secondary amine on DVB support
- Pore size: 80Å
- Ion-Exchange capacity: ~1 meq/g
- pKa ~7
- Available in 25-35µm or 55-65µm particle sizes
- Available in various cartridge sizes and 96-well plate formats



IRIS WAX is a mixed mode weak cation exchange divinylbenzene polymer phase, designed to retain and release strong acids such as sulfates. Depending on the requirements of the application, this phase can be used in the neutral or positively charged state. IRIS WAX displays both anion exchange and reverse phase behavior, which promotes excellent retention over a wide range of hydrophilicity for both acidic, when phase is positively charged, and neutral compounds. IRIS WAX can be used for phosphate removal from biological matrices.

IRIS WAX SPE Cartridges

Part No.	Description	Particle Size	Qty (Box)
IR86011	IRIS WAX 10mg/1mL	25-35µm	100
IR86012	IRIS WAX 30mg/1mL	25-35µm	100
IR86015	IRIS WAX 60mg/3mL	25-35µm	100
IR86018	IRIS WAX 200mg/6mL	25-35µm	30
IR86019	IRIS WAX 500mg/6mL	25-35µm	30
IR86020	IRIS WAX 1gram/6mL	25-35µm	10
IR86000	IRIS WAX 10mg/1mL	55-65µm	100
IR86001	IRIS WAX 30mg/1mL	55-65µm	100
IR86004	IRIS WAX 60mg/3mL	55-65µm	100
IR86007	IRIS WAX 200mg/6mL	55-65µm	30
IR86008	IRIS WAX 500mg/6mL	55-65µm	30

IRIS WAX SPE 96-well Plates

Part No.	Description	Particle Size	Qty (Box)
IR97508	IRIS WAX 96-well 10mg/1mL	25-35µm	1
IR97510	IRIS WAX 96-well 30mg/1mL	25-35µm	1
IR97512	IRIS WAX 96-well 60mg/1mL	25-35µm	1
IR97514	IRIS WAX 96-well 30mg/2mL	25-35µm	1
IR97515	IRIS WAX 96-well 60mg/2mL	25-35µm	1
IR97502	IRIS WAX 96-well 30mg/1ml	55-65µm	1
IR97504	IRIS WAX 96-well 60mg/1ml	55-65µm	1

25-35µm particle size for vacuum or positive pressure elution
55-65µm particle size for gravity elution



Features & Benefits

- Secondary Amine Phase – allows for tunable selectivity for strong acids
- 100% DVB – no swelling, increased retention, excellent flow properties and pH stability
- Excellent Retention – bifunctional with reverse phase and anion exchange behavior
- Uniquely Selective – fast and efficient sample preparation and purification
- Improved Flow Characteristics

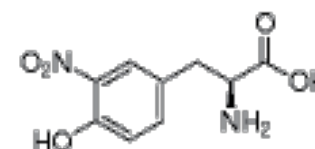
IRIS WAX APPLICATION

Sorbent: IRIS WAX - 30mg/1mL
Part Number: IR86012
Solution Conc: 10 µg/mL in H₂O

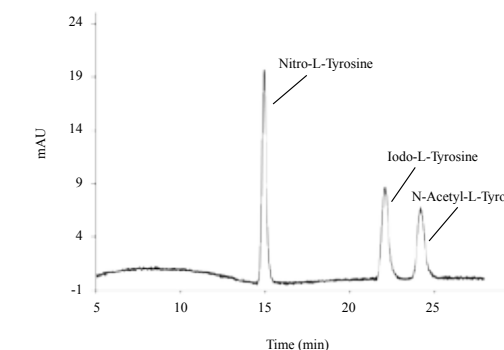
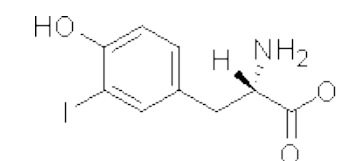
Nitro-L-Tyrosine, Iodo-L-Tyrosine, N-Acetyl-L-Tyrosine

Recovery Rates:	Nitro-L-Tyrosine	Iodo-L-Tyrosine	N-Acetyl-L-Tyrosine
Run 1	96.7%	94.8%	99.1%
Run 2	98.0%	98.8%	102.6%
Run 3	98.2%	95.0%	103.6%

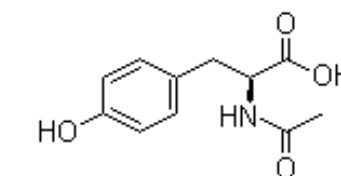
Nitro-L-Tyrosine



Iodo-L-Tyrosine



N-Acetyl-L-Tyrosine



Applications - Environmental

Sorbent: IRIS PLUS - 200mg/6mL
 Part Number: IR34445
 Solution Conc: 10 µg/mL in H₂O

Polycyclic aromatic hydrocarbons - PAH

Recovery Rates:	Chrysene	Benzo(b)Fluoranthene
	104.8%	106.5%
	Benzo(a)Anthracene	Benzo(j)Fluoranthene
	106.5%	98.7%
	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene
	Benzo(e)pyrene	Benzo(g,h,i)perylene
		Dibenz(a,h)anthracene

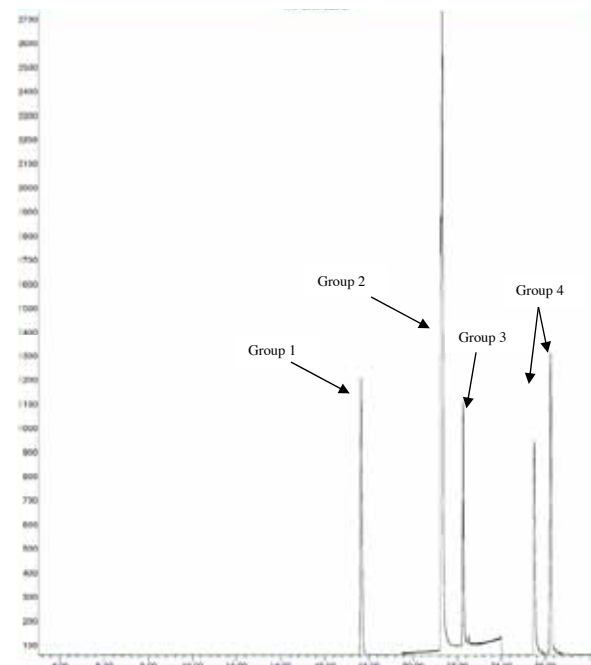


Figure 1: GCMS Chromatogram

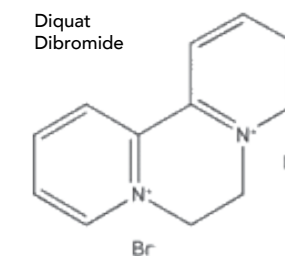
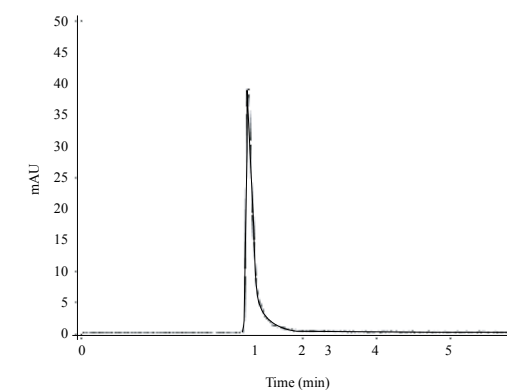
Applications - Environmental

Sorbent: IRIS WCX - 30mg/1mL
 Part Number: IR84013
 Solution Conc: 10 µg/mL in H₂O

Diquat Dibromide

Recovery Rates:	Run 1	Run 2	Run 3
	92.4%	92.7%	85.8%

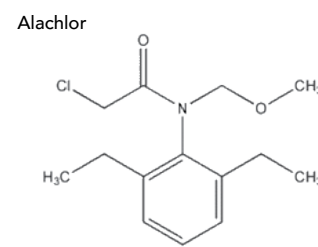
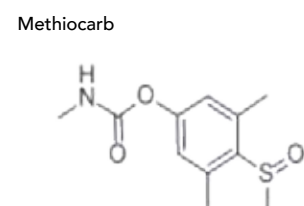
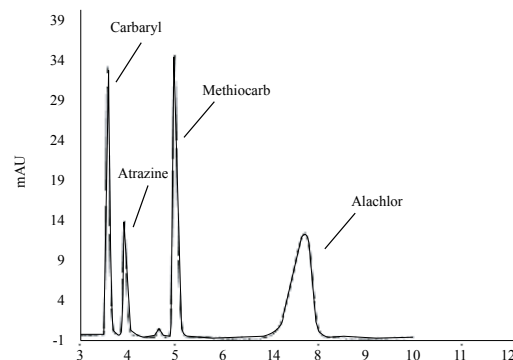
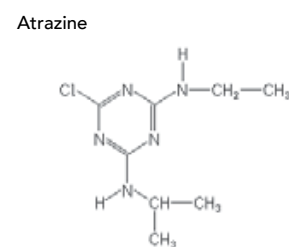
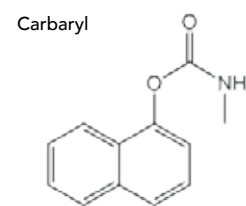
Note: The peak area values for Diquat were found to change over time. There was a relatively quick change to lower area values that then somewhat leveled off. The area values used for quantitation were for injections of the standards and the SPE solutions in this semi-stable time frame. This observed change in peak area over time is consistent with references that state the need to deactivate glassware prior to Diquat solution contact. In this analysis the SPE Diquat solution comes in contact with three different glass vessels. Diquat is not retained by the chromatographic column, eluting in the void volume. However, the strong absorbance at 310nm allows for quantitation without interference.



Sorbent: IRIS N - 30mg/1mL
 Part Number: IR44461
 Solution Conc: 1, 1, 5, 10 µg/mL in H₂O

Carbaryl, Atrazine, Methiocarb, Alachlor

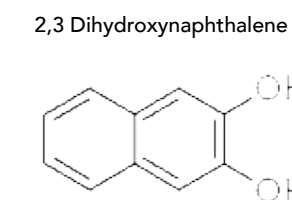
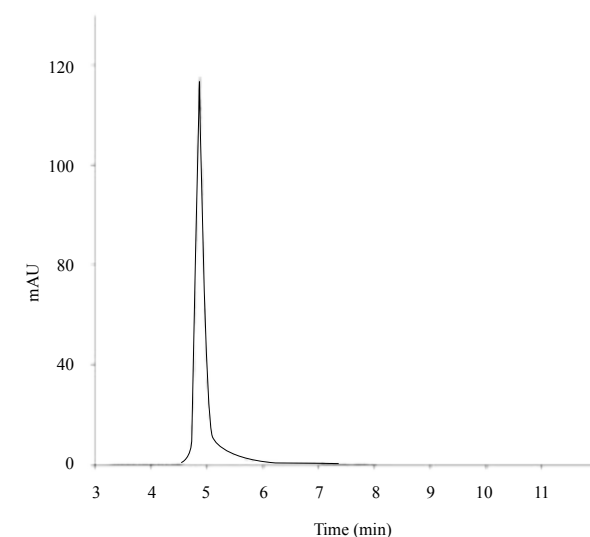
Recovery Rates:	Carbaryl	Atrazine	Methiocarb	Alachlor
Run 1	102.0%	98.0%	101.4%	98.0%
Run 2	100.1%	101.1%	101.0%	101.1%
Run 3	99.9%	102.2%	99.6%	102.2%



Sorbent: IRIS MCX - 30mg/1mL
 Part Number: IR54461
 Solution Conc: 10 µg/mL in H₂O

2,3 Dihydroxynaphthalene

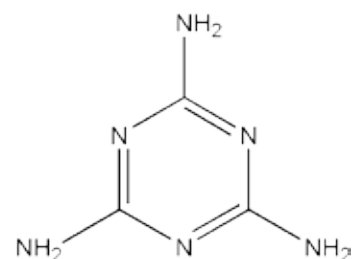
Recovery Rates:	Run 1	Run 2	Run 3
	109.5%	103.0%	101.6%



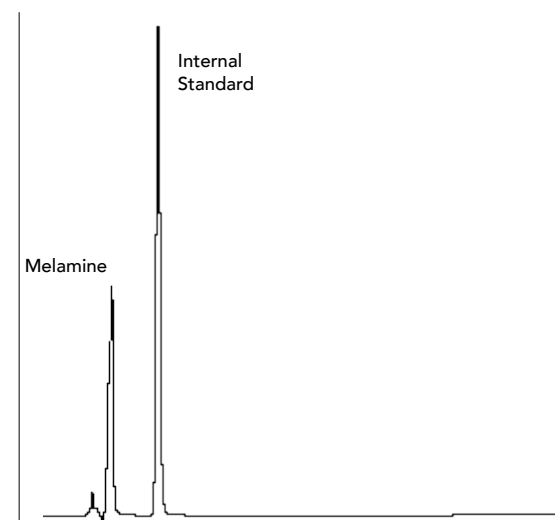
Applications - Food & Agriculture

Sorbent: IRIS MCX - 200mg/6mL
 Part Number: IR54445
 Solution Conc: 1 mg/mL in H₂O

Recovery Rates: Melamine
 97%



Melamine



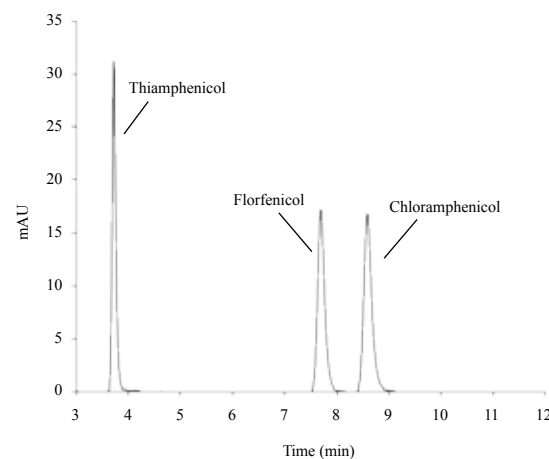
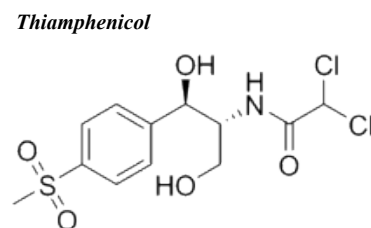
Sorbent: IRIS N - 30mg/1mL
 Part Number: IR44461
 Solution Conc: 5 µg/mL in H₂O

Recovery Rates:

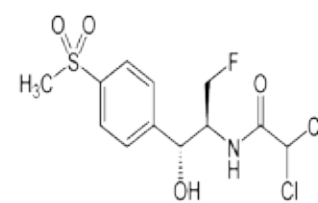
	Tiamphenicol	Florfenicol	Chloramphenicol
Run 1	98.4%	99.1%	99.3%
Run 2	99.7%	101.1%	100.3%
Run 3	99.2%	100.4%	99.8%

Note 1: Elution from the Hydroclean RP SPE cartridge was performed with 70% CH₃CN. While 100% CH₃CN appeared to fully elute the compounds, the chromatographic peak shape was significantly better when the SPE elution solvent was less than 100% CH₃CN. 70% was used because it was already prepared, lower CH₃CN may lead to more improvement in chromatographic peak shape.

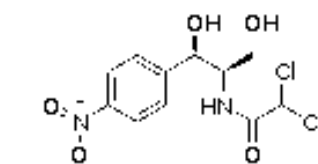
Tiamphenicol, Florfenicol, Chloramphenicol



Florfenicol



Chloramphenicol



Applications - Food & Agriculture

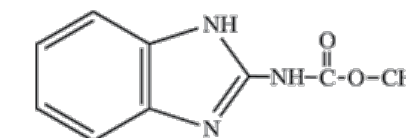
Sorbent: IRIS MCX - 30mg/1mL
 Part Number: IR54461
 Solution Conc: 5 µg/mL in H₂O

Recovery Rates:

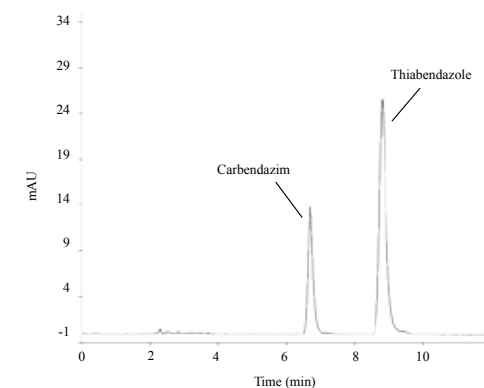
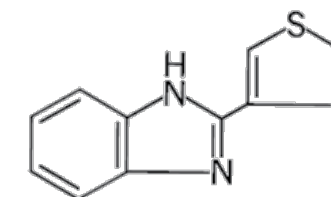
	Carbendazim	Thiabendazole
Run 1	101.7%	99.1%
Run 2	102.0%	100.1%
Run 3	100.2%	98.0%

Carbendazim, Thiabendazole

Carbendazim



Thiabendazole



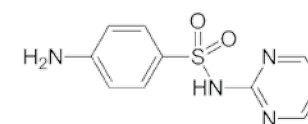
Sorbent: IRIS WCX - 30mg/1mL
 Part Number: IR84013
 Solution Conc: 5 µg/mL in H₂O

Recovery Rates:

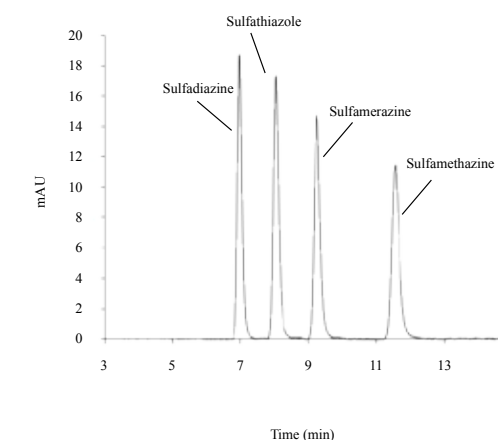
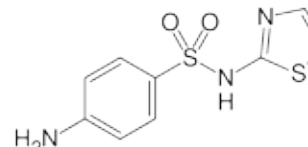
	Sulfadiazine	Sulfathiazole	Sulfamerazine	Sulfamethazine
Run 1	98.8%	95.0%	99.9%	99.5%
Run 2	102.2%	98.1%	100.5%	99.4%
Run 3	98.2%	93.8%	95.6%	96.5%

Sulfonamides

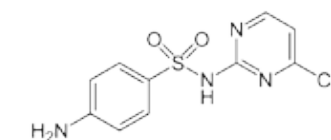
Sulfadiazine



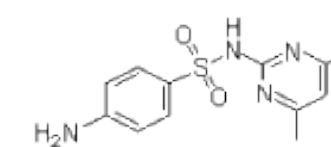
Sulfathiazole



Sulfamerazine



Sulfamethazine

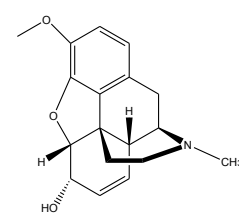


Applications - Clinical & Bioanalysis

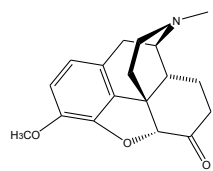
Sorbent: IRIS MCX 200mg/6mL
 Part Number: IR54445
 Solution Conc: 5 µg/mL in H₂O

Recovery Rates:

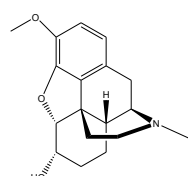
Hydrocodone	95%
Dihydrocodeine	91%
Methylmorphine (Codeine)	94%
Oxycodone	104%
Hydromorphone	93%
Morphine	87%
Oxymorphone	94%



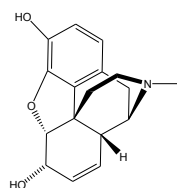
Methylmorphine (Codeine)



Hydrocodone

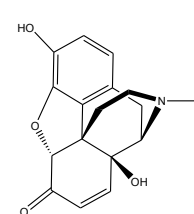
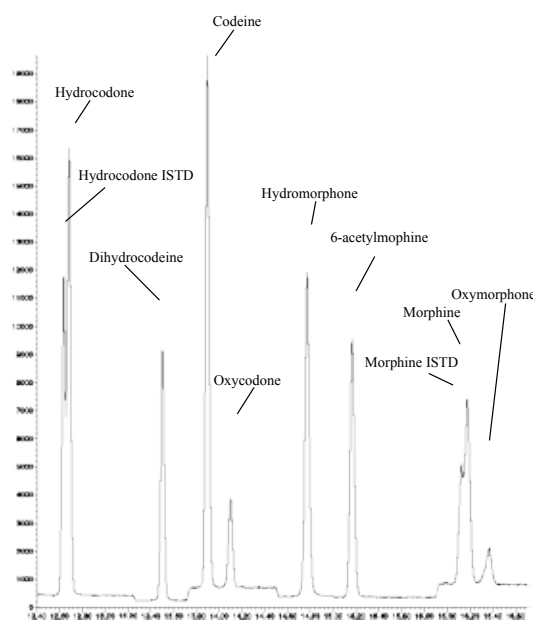


Dihydrocodeine

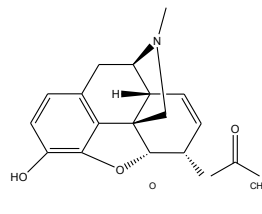


Morphine

Opiates



Oxymorphone

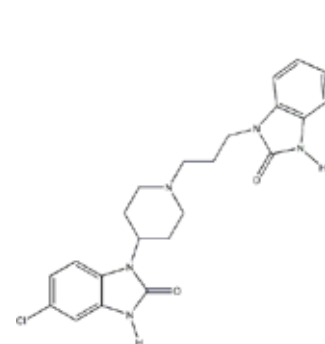


6-acetylmorphine

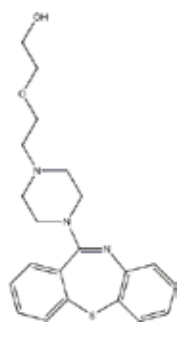
Sorbent: IRIS N - 30mg/1mL
 Part Number: IR44461
 Solution Conc: 25 µg/mL in H₂O

Recovery Rates:

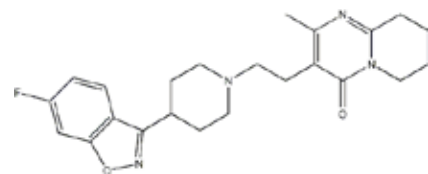
Risperidone	100%
Quetiapine Fumarate	103%
Domperidone	103%



Domperidone



Quetiapine Fumarate



Risperidone

Antipsychotic Drugs

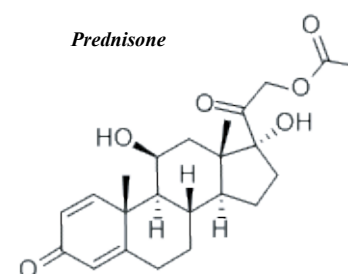
Applications - Clinical & Bioanalysis

Sorbent: IRIS N - 30mg/1mL
 Part Number: IR44461
 Solution Conc: 6 µg/mL in H₂O

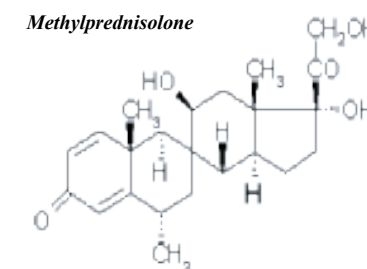
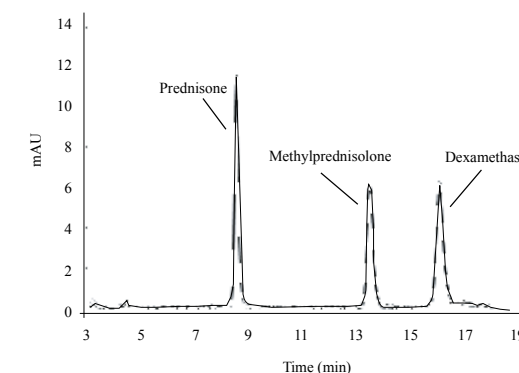
Recovery Rates:

	Prednisone	Methylprednisolone	Dexamethasone
Run 1	100.7%	97.7%	100.0%
Run 2	99.5%	98.3%	98.0%
Run 3	99.8%	99.9%	99.3%

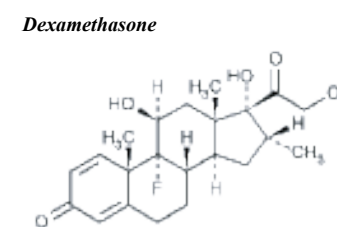
Note: Elution of the hormones from the Hydroclean RP SPE cartridge was performed with 60% CH₃CN. It was found that lower recoveries were obtained when using 100% CH₃CN.



Prednisone



Methylprednisolone

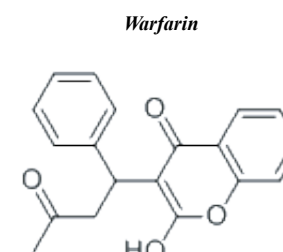


Dexamethasone

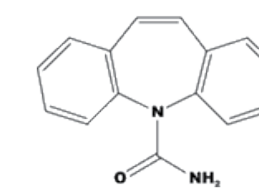
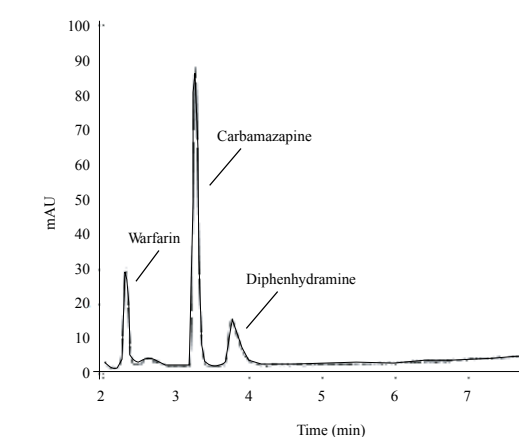
Sorbent: IRIS N - 30mg/1mL
 Part Number: IR44461
 Solution Conc: Warfarin (2 µg/mL), Carbamazepine (1 µg/mL),
 Diphenhydramine (5 µg/mL) in H₂O

Recovery Rates:

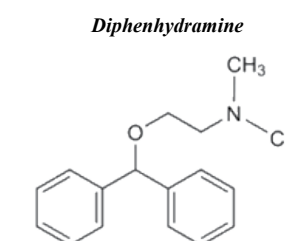
	Warfarin	Carbamazepine	Diphenhydramine
Run 1	93.8%	97.5%	100.4%
Run 2	95.8%	98.0%	104.1%
Run 3	94.2%	99.2%	106.1%



Warfarin



Carbamazepine



Diphenhydramine

InnoSep Vacuum Manifolds

InnoSep Vacuum manifolds for SPE sample preparation, filtration, and elution are available in 12, 16, and 24 port configurations.

These manifolds permit consistent extraction and filtration results. Multiple sample processing with these manifolds simplifies procedures and saves time. The manifolds consist of a clear glass chamber and lid to which a vacuum is applied to draw a sample through an SPE column, cartridge, or disk.

Adjustable racks placed in the glass vacuum chamber will accommodate a variety of sample collection vessels, including test tubes, autosampler vials, volumetric flasks, and Erlenmeyer flasks. Eluents are deposited directly into the collection vessel of choice via polypropylene, optional stainless steel, or Teflon needles.



Vacuum Manifolds

Part No.	Description	Qty
CM4012	*Vacuum manifold complete set, 12 position	1
CM4416	*Vacuum manifold complete set, 16 position	1
CM4824	*Vacuum manifold complete set, 24 position	1

* Vacuum manifold complete set includes - Glass chamber with gauge assembly and lid assembly, Full racking system, PP needles, Stopcocks and Black Legs

