



iMethod™ Applications for
Food and Beverage Analysis

A Rapid iMethod™ Application for Screening Pesticides V.2.2 for Cliquid® Software



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Tools for routine testing labs for easy implementation of pesticide screening in food, water, and other consumer products

Overview

With more than 800 pesticides currently in use there is growing concern by government agencies about the effect of pesticide exposure on human health. As a result, the residue level of pesticides in food, water and other consumer products are highly regulated. While analytical techniques like GC or GC/MS have traditionally been used for pesticide analysis, LC/MS/MS has quickly become the technique of choice due to the ability to analyze a more diverse set of pesticides, faster with better sensitivity and less sample preparation.

The following description outlines the instrument requirements and expected results obtainable from the AB SCIEX iMethod™ Application for Pesticide Screening and Quantitation using an AB SCIEX 3200 QTRAP® system or API 3200™ system. This iMethod™ application consists of a pre-configured method to screen for 534 pesticides; a positive polarity method and a negative polarity method to screen for the analytes in EU MRL list; and individual quantitation methods for carbamate, phenyl urea, triazine, organophosphorus, and acidic pesticides.

All methods have also been verified for use on AB SCIEX 4000 QTRAP®, API 4000™, QTRAP® 5500 and AB SCIEX Triple Quad™ 5500 systems.

The iMethod™ Application also includes the *iDQuant™* Pesticide Standard Kit containing 204 compounds distributed in 10 vials for easy preparation of standards. See Tables 2 – 11 for a comprehensive list. More in-depth sample preparation, and instrument parameter information is included as part of the standard operating procedure provided with the method, as are the required analytical columns. Solvents, standards and any supplies required for sample preparation are not included. Please note that the use of QTRAP® system technology is recommended for use with the screening method provided and that the associated library is not included and may be purchased separately.

Experimental details

The pesticide screening method included in this iMethod™ application is for the routine screening of 534 pesticides from food samples using the QuEChERS extraction and cleanup technique. The method uses external calibration standards and matrix spike recoveries to correct for sample and instrument variability and is based upon the use of a 3200 QTRAP® LC/MS/MS system.

A suggested method for the extraction of pesticides from vegetable, nut and citrus plant materials is also provided and is based upon the use of widely available QuEChERS tubes. Separation is achieved using a simple methanol / water gradient with ammonium formate with a Phenomenex Synergi 2.5 µm Fusion 100 Å, 50 x 2 mm HPLC column that is included with this iMethod™ application. Table 1 provides representative recoveries, signal-to-noise ratios, and estimated detection limits for 130 selected pesticides spiked at 25 ng/mL in a cucumber matrix using QuEChERS sample processing technique.

Quantitation Methods

The following information outlines the list of standard compounds in each of the quantitation methods for each compound class listed above. The methodology presented below was developed to quantify each pesticide when run by compound class, at < 10 ppb in order to meet regulatory requirements. The 603-compound MRM catalogue provided can also be used to create new customized tests according to any combinations required.

Example sample preparation procedures are provided for fruits and vegetables, based upon a simple sample homogenization, centrifugation, extraction and dilution. These procedures may require additional optimization based upon the actual composition and consistency of the fruit or vegetable under investigation. Deuterated and/or C13-labeled internal standards of known concentrations are added during sample preparation to monitor sample recovery.

Figure 1: Chromatogram of a 303 pesticides mix on an API 3200™ LC/MS/MS system (10 ng/mL)

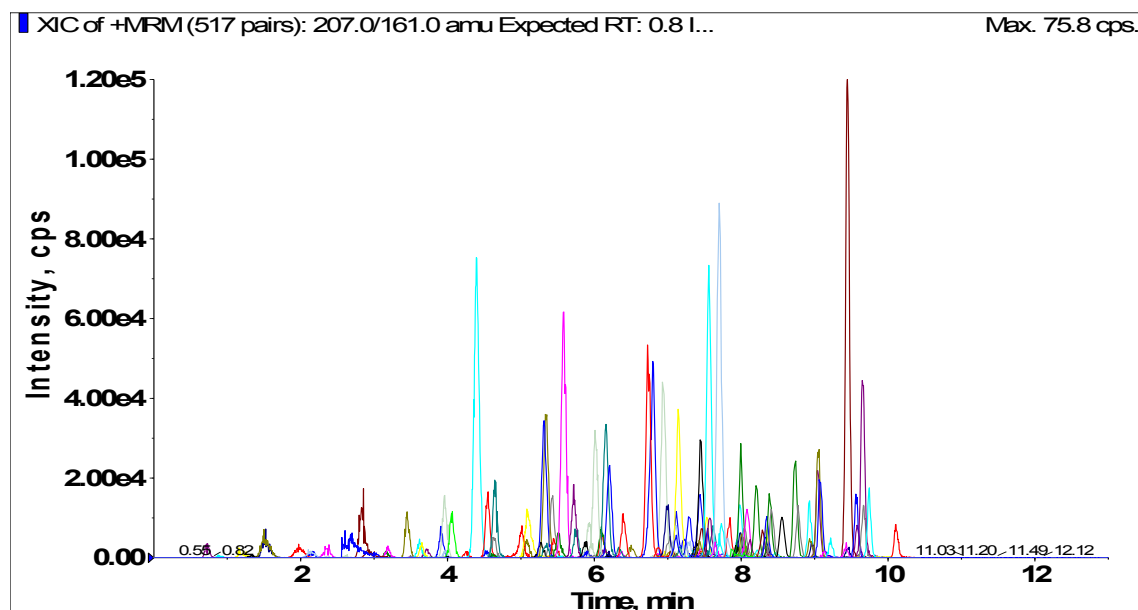


Table 1.

Representative recoveries, signal-to-noise ratios and estimated detection limits for 130 selected pesticides spiked at 25 ng/mL in a cucumber matrix using QuEChERS sample processing, as run on the 3200 QTRAP® LC/MS/MS system

Analyte	% Recovery	S/N*	% CV	Estimated detection limit (ng/mL)**
Aldicarb-sulfoxide	97.0%	26	4.2%	9.6
Aldoxycarb	96.4%	33.2	10.0%	7.5
Alloxydim	60.8%	32.2	7.5%	7.8
Aminocarb	84.2%	84	2.6%	3.0
Atrazine	65.1%	34	2.4%	7.4
Atrazine-2-hydroxy	79.9%	77.8	2.9%	3.2
Atrazine-desethyl-2-hydroxy	104.1%	38.8	1.9%	6.4
Benalaxyl	94.9%	39.5	18.1%	6.3
Bendiocarb	120.2%	33.1	16.2%	7.6
Benzoximate	119.9%	29.3	10.0%	8.5
Boscalid	15.3%	14.3	18.7%	17.5
Bromacil	99.0%	15.9	8.4%	15.7
Bupirimate	106.2%	43.8	9.0%	5.7
Butocarboxim-sulfoxid	102.2%	37.7	2.3%	6.6
Buturon	98.6%	20.4	4.1%	12.3
Carbaryl	98.4%	44.7	1.5%	5.6
Carbetamide	94.3%	58.8	4.9%	4.3
Chloridazon	111.1%	35.5	1.7%	7.0
Chlorotoluron	149.2%	38.1	2.4%	6.6
Chloroxuron	69.5%	24.7	11.0%	10.1
Cinosulfuron	88.6%	28.8	18.9%	8.7
Clomazone	107.2%	42.3	1.8%	5.9
Cloquintocet-mexyl	140.8%	95.8	10.1%	2.6
Coumaphos	120.8%	24.4	3.6%	10.2
Cyanazine	115.6%	22.1	20.1%	11.3
Cyproconazole	48.6%	24.6	7.1%	10.2
Cyprodinil	120.2%	11.3	7.6%	22.1

Analyte	% Recovery	S/N*	% CV	Estimated detection limit (ng/mL)**
<i>Demeton-S-methyl-sulfone</i>	90.0%	32.8	1.9%	7.6
<i>Diazinon</i>	100.5%	81.9	7.2%	3.1
<i>Diclobutrazol</i>	88.3%	26.3	7.6%	9.5
<i>Dicrotophos</i>	112.7%	58.1	19.1%	4.3
<i>Diethofencarb</i>	28.5%	16.2	8.0%	15.4
<i>Difenoxyuron</i>	104.0%	51	5.3%	5.0
<i>Dimefuron</i>	92.5%	20	6.6%	12.6
<i>Dimethachlor</i>	88.8%	13	11.8%	19.5
<i>Dimethenamide</i>	100.5%	39	2.7%	6.5
<i>Dimetilan</i>	106.0%	101	2.5%	2.5
<i>Dodemorph</i>	67.0%	107	3.0%	2.3
<i>Ethidimuron</i>	139.0%	28	6.5%	8.9
<i>Ethiofencarb-sulfon</i>	113.0%	59	14.7%	4.3
<i>Ethiofencarb-sulfoxid</i>	99.1%	119	3.6%	2.1
<i>Ethion</i>	113.9%	17	7.2%	14.8
<i>Ethirimol</i>	99.6%	42	4.9%	6.0
<i>Ethoprophos</i>	112.9%	16	14.1%	15.2
<i>Etrimfos</i>	93.3%	64	4.6%	3.9
<i>Fenbuconazole</i>	93.0%	21	2.2%	11.9
<i>Fenfuram</i>	98.0%	46	7.7%	5.5
<i>Fenhexamid</i>	47.9%	15	15.1%	17.0
<i>Fenoxaprop-P-ethyl</i>	113.9%	32	7.2%	7.8
<i>Fenpropimorph</i>	130.8%	152	4.2%	1.6
<i>Fenpyroximate</i>	161.6%	15	8.4%	16.8
<i>Fenuron</i>	102.8%	47	5.5%	5.3
<i>Flamprop-M-isopropyl</i>	104.1%	55	4.1%	4.5
<i>Flamprop-M-methyl</i>	90.2%	20	3.7%	12.4
<i>Flazasulfuron</i>	100.8%	74	7.5%	3.4
<i>Fluazifop-butyl</i>	144.5%	50	3.6%	5.0
<i>Flufenacet</i>	89.7%	22	12.8%	11.5
<i>Fluometuron</i>	120.9%	77	2.3%	3.2
<i>Fluridone</i>	68.4%	30	11.8%	8.4
<i>Flurtamone</i>	89.7%	20	5.2%	12.3
<i>Fuberidazole</i>	102.7%	125	6.2%	2.0
<i>Haloxifop-P-methyl</i>	106.4%	15	3.2%	16.9
<i>Hexaconazole</i>	100.9%	23	2.1%	11.0
<i>Hexazinone</i>	106.3%	202	15.8%	1.2
<i>Imazalil</i>	117.7%	34	18.1%	7.3
<i>Isazofos</i>	74.9%	13	8.0%	19.1
<i>Isoprothiolane</i>	62.1%	77	1.2%	3.2
<i>Lenacil</i>	111.3%	43	6.1%	5.8
<i>Malaoxon</i>	44.7%	50	9.5%	5.0
<i>Malathion</i>	94.7%	30	5.9%	8.3
<i>Mepanipyrim</i>	79.5%	3	7.9%	80.6
<i>Metconazole</i>	118.2%	19	7.3%	13.4
<i>Methamidophos</i>	90.9%	33	6.5%	7.6
<i>Methfuroxam</i>	66.2%	96	1.1%	2.6
<i>Methidathion</i>	47.9%	35	4.2%	7.2
<i>Metobromuron</i>	116.1%	19	4.0%	12.9
<i>Metolachlor</i>	82.7%	22	2.6%	11.4
<i>Metosulam</i>	99.7%	51	2.7%	4.9
<i>Monuron</i>	100.3%	22	2.8%	11.6
<i>Napropamide</i>	103.7%	31	11.5%	8.1
<i>Oxasulfuron</i>	87.8%	78	6.6%	3.2

Analyte	% Recovery	S/N*	% CV	Estimated detection limit (ng/mL)**
Oxycarboxin	98.5%	110	5.3%	2.3
Paclobutrazol	105.4%	48	9.2%	5.2
Phosalone	102.9%	13	9.0%	18.9
Phosphamidon	95.2%	104	6.5%	2.4
Picoxystrobin	133.1%	104	3.8%	2.4
Pirimiphos-ethyl	129.7%	57	4.1%	4.4
Pirimiphos-methyl	105.1%	63	3.1%	4.0
Prometon	100.5%	105	6.0%	2.4
Prometryne	49.5%	14	19.5%	18.4
Propamocarb	106.5%	20	1.9%	12.8
Propazin-2-hydroxy	81.5%	19	3.6%	12.9
Propazine	72.8%	11	10.7%	22.5
Prosulfocarb	114.9%	145	6.1%	1.7
Pymetrozine	101.4%	115	2.6%	2.2
Pyraclostrobin	141.1%	24	9.6%	10.5
Pyrazophos	108.9%	55	4.8%	4.5
Pyridaben	102.8%	18	4.1%	14.1
Pyridaphenthion	88.6%	10	6.3%	25.3
Pyrimethanil	40.1%	18	5.8%	13.6
Pyriproxyfen	153.8%	51	4.3%	4.9
Quinalphos	124.9%	17	7.3%	14.8
Quinmerac	104.9%	116	1.3%	2.2
Sebuthylazine	56.9%	55	3.6%	4.6
Sebuthylazine-desethyl	88.6%	39	7.1%	6.5
Sethoxydim	82.5%	28	10.1%	8.9
Siduron	59.7%	14	5.3%	17.5
Simazine-2-hydroxy	105.5%	99	10.6%	2.5
Simetryn	95.7%	96	6.6%	2.6
Spiroxamine	97.1%	230	6.0%	1.1
Sulfometuron-methyl	98.2%	103	5.1%	2.4
Tebuconazol	87.3%	45	9.6%	5.5
Tebufenpyrad	125.2%	13	10.6%	18.8
Tebutam	87.2%	22	7.3%	11.4
Tebuthiuron	97.8%	61	14.4%	4.1
Terbufos	44.3%	4	20.3%	65.8
Terbutylazine	31.7%	18	3.3%	14.1
Terbutylazine-desethyl	88.7%	39	8.1%	6.5
Terbutryn	31.9%	119	6.0%	2.1
Tetraclorvinphos	101.3%	20	8.7%	12.5
Tetraconazole	82.1%	32	16.3%	7.8
Thifensulfuron-methyl	100.8%	74	4.2%	3.4
Triasulfuron	80.5%	35	7.5%	7.2
Triazophos	31.9%	19	9.9%	13.2
Tricyclazole	93.8%	72	1.9%	3.5
Trietazine	75.4%	12	13.6%	21.0
Trifloxystrobin	113.9%	83	5.8%	3.0
Triflumizole	122.4%	25	11.9%	10.1
Triticonazole	117.1%	24	5.8%	10.6
Uniconazole	66.5%	24	24.0%	10.6
Vamidothion	113.1%	36	13.9%	7.0

* Signal-to-noise obtained at three standard deviations on a 3200 QTRAP® System.

** Estimated detection limit based on estimated signal at 10 x the Signal-to-noise ratio.

Table 2. Content iDQuant™ Pesticide Standard A1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>3-Hydroxycarbofuran</i>	16655-82-6	<i>Formetanate HCL</i>	23422-53-9
<i>Acephate</i>	30560-19-1	<i>Fuberidazole</i>	3878-19-1
<i>Aldicarb sulfone</i>	1646-88-4	<i>Methamidophos</i>	10265-92-6
<i>Aldicarb sulfoxide</i>	1646-87-3	<i>Methomyl</i>	16752-77-5
<i>Aminocarb</i>	2032-59-9	<i>Mevinphos</i>	7786-34-7
<i>Butocarboxim</i>	34681-10-2	<i>Monocrotophos</i>	6923-22-4
<i>Butoxycarboxim</i>	34681-23-7	<i>Omethoate</i>	1113-02-6
<i>Carbendazim</i>	10605-21-7	<i>Oxamyl</i>	23135-22-0
<i>Cymoxanil</i>	57966-95-7	<i>Propamocarb</i>	24579-73-5
<i>Dicrotophos</i>	141-66-2	<i>Thiabendazole</i>	148-79-8
<i>Dimethoate</i>	60-51-5	<i>Tricyclazole</i>	41814-78-2
<i>Dioxacarb</i>	6988-21-2	<i>Formetanate HCL</i>	23422-53-9

Table 3. Content iDQuant™ Pesticide Standard B1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Aldicarb</i>	116-06-3	<i>Isoproc carb</i>	2631-40-5
<i>Bendiocarb</i>	22781-23-3	<i>Metalaxyl</i>	57837-19-1
<i>Carbaryl</i>	63-25-2	<i>Methiocarb</i>	2032-65-7
<i>Carbetamide</i>	16118-49-3	<i>Mexacarbate</i>	315-18-4
<i>Carbofuran</i>	1563-66-2	<i>Oxadixyl</i>	77732-09-3
<i>Carboxin</i>	5234-68-4	<i>Pirimicarb</i>	23103-98-2
<i>Clethodim</i>	99129-21-2	<i>Promecarb</i>	2631-37-0
<i>Desmedipham</i>	13684-56-5	<i>Propham</i>	122-42-9
<i>Diethofencarb</i>	87130-20-9	<i>Propoxur</i>	114-26-1
<i>Ethiofencarb</i>	29973-13-5	<i>Pyracarbolid</i>	24691-76-7
<i>Furalaxyl</i>	57646-30-7	<i>Thiofanox</i>	39196-18-4
<i>Iprovalicarb</i>	140923-17-7	<i>Thiophanate-methyl</i>	23564-05-8

Table 4. Content iDQuant™ Pesticide Standard C1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Alany carb</i>	83130-01-2	<i>Flufenacet</i>	142459-58-3
<i>Amitraz</i>	33089-61-1	<i>Furathiocarb</i>	65907-30-4
<i>Benalaxyl</i>	71626-11-4	<i>Indoxacarb</i>	144171-61-9
<i>Benfuracarb</i>	82560-54-1	<i>Mefenacet</i>	73250-68-7
<i>Benzoximate</i>	29104-30-1	<i>Mepronil</i>	55814-41-0
<i>Bifenazate</i>	149877-41-8	<i>Piperonyl butoxide</i>	51-03-6
<i>Cyazofamid</i>	120116-88-3	<i>Quinoxifen</i>	124495-18-7
<i>Fenamidone</i>	161326-34-7	<i>Spiroxamine</i>	118134-30-8
<i>Fenazaquin</i>	120928-09-8	<i>Thiobencarb</i>	28249-77-6
<i>Fenhexamid</i>	126833-17-8	<i>Zoxamide</i>	156052-68-5
<i>Fenoxycarb</i>	79127-80-3		

Table 5. Content iDQuant™ Pesticide Standard D1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Acetamiprid</i>	135410-20-7	<i>Metribuzin</i>	21087-64-9
<i>Acibenzolar-S-methyl</i>	135158-54-2	<i>Myclobutanil</i>	88671-89-0
<i>Bromucanazol</i>	116255-48-2	<i>Nitenpyram</i>	120738-89-8
<i>Clothianidin</i>	210880-92-5	<i>Nuarimol</i>	63284-71-9
<i>Cyproconazole</i>	113096-99-4	<i>Paclobutrazol</i>	76738-62-0
<i>Epoxiconazole</i>	135319-73-2	<i>Pyrimethanil</i>	53112-28-0
<i>Etaconazole</i>	60207-93-4	<i>Thiacloprid</i>	111988-49-9
<i>Fenarimol</i>	60168-88-9	<i>Thiamethoxam</i>	153719-23-4
<i>Flutriafol</i>	76674-21-0	<i>Triadimenol</i>	55219-65-3
<i>Imazalil</i>	35554-44-0	<i>Triticonazole</i>	131983-72-7
<i>Imidacloprid</i>	138261-41-3		

Table 6. Content iDQuant™ Pesticide Standard E1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Abamectin</i>	71751-41-2	<i>Flutolanil</i>	66332-96-5
<i>Bitertanol</i>	55179-31-2	<i>Hexaconazole</i>	79983-71-4
<i>Bupirimate</i>	41483-43-6	<i>Mepanipyrim</i>	110235-47-7
<i>Butafenacil</i>	134605-64-4	<i>Metconazole</i>	125116-23-6
<i>Clofentezine</i>	74115-24-5	<i>Methoxyfenozid</i>	161050-58-4
<i>Cyprodinil</i>	121552-61-2	<i>Penconazole</i>	66246-88-6
<i>Diclobutrazol</i>	75736-33-3	<i>Prochloraz</i>	67747-09-5
<i>Difenoconazole</i>	119446-68-3	<i>Propiconazole</i>	60207-90-1
<i>Diniconazol</i>	83657-24-3	<i>Rotenone</i>	83-79-4
<i>Ethofumesate</i>	26225-79-6	<i>Tebufenozide</i>	112410-23-8
<i>Fenbuconazole</i>	114369-43-6	<i>Triflumizole</i>	68694-11-1
<i>Flusilazole</i>	85509-19-9		

Table 7. Content iDQuant™ Pesticide Standard F1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Carfentrazone-ethyl</i>	128639-02-1	<i>Mesotrione</i>	104206-82-8
<i>Doramectin</i>	117704-25-3	<i>Moxidectin</i>	113507-06-5
<i>Emamectin-benzoate</i>	155569-91-8	<i>Propargite</i>	2312-35-8
<i>Eprinomectin</i>	123997-26-2	<i>Spinosad</i>	168316-95-8
<i>Fluquinconazole</i>	136426-54-5	<i>Spirodiclofen</i>	148477-71-8
<i>Hexythiazox</i>	78587-05-0	<i>Spiromesifen</i>	283594-90-1
<i>Hydramethylnon</i>	67485-29-4	<i>Tebuconazol</i>	107534-96-3
<i>Ipconazole</i>	125225-28-7	<i>Tetraconazole</i>	112281-77-3
<i>Ivermectin</i>	70288-86-7		

Table 8. Content iDQuant™ Pesticide Standard G1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Chlortoluron</i>	15545-48-9	<i>Monolinuron</i>	1746-81-2
<i>Cycluron</i>	2163-69-1	<i>Prometon</i>	1610-18-0
<i>Diuron</i>	330-54-1	<i>Pymetrozine</i>	123312-89-0
<i>Fenuron</i>	101-42-8	<i>Secbumeton</i>	26259-45-0
<i>Fluometuron</i>	2164-17-2	<i>Simetryn</i>	1014-70-6
<i>Forchlorfenuron</i>	68157-60-8	<i>Sulfentrazone</i>	122836-35-5
<i>Isoproturon</i>	34123-59-6	<i>Tebuthiuron</i>	34014-18-1
<i>Methabenzthiazuron</i>	18691-97-9	<i>Terbumeton</i>	33693-04-8
<i>Methoprotryne</i>	841-06-5	<i>Thidiazuron</i>	51707-55-2
<i>Metobromuron</i>	3060-89-7	<i>Triadimefon</i>	43121-43-3

Table 9. Content iDQuant™ Pesticide Standard H1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Ametryn</i>	834-12-8	<i>Hexaflumuron</i>	86479-06-3
<i>Azoxystrobin</i>	131860-33-8	<i>Kresoxim-methyl</i>	143390-89-0
<i>Boscalid</i>	188425-85-6	<i>Linuron</i>	330-55-2
<i>Chloroxuron</i>	1982-47-4	<i>Neburon</i>	555-37-3
<i>Diflubenzuron</i>	35367-38-5	<i>Phenmedipham</i>	13684-63-4
<i>Dimethomorph</i>	110488-70-5	<i>Picoxystrobin</i>	117428-22-5
<i>Dimoxystrobin</i>	149961-52-4	<i>Prometryne</i>	7287-19-6
<i>Famoxadon</i>	131807-57-3	<i>Siduron</i>	1982-49-6
<i>Fipronil</i>	120068-37-3	<i>Terbutryne</i>	886-50-0
<i>Fludioxonil</i>	131341-86-1	<i>Triflumuron</i>	64628-44-0

Table 10. Content iDQuant™ Pesticide Standard J1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Buprofezin</i>	69327-76-0	<i>Lufenuron</i>	103055-07-8
<i>Chlorfluazuron</i>	71422-67-8	<i>Novaluron</i>	116714-46-6
<i>Ethiprole</i>	181587-01-9	<i>Prothioconazole</i>	178928-70-6
<i>Etoxazole</i>	153233-91-1	<i>Pyraclostrobin</i>	175013-18-0
<i>Fenpropimorph</i>	67564-91-4	<i>Pyridaben</i>	96489-71-3
<i>Fenpyroximate</i>	111812-58-9	<i>Pyriproxyfen</i>	95737-68-1
<i>Fluazinam</i>	79622-59-6	<i>Tebufenpyrad</i>	119168-77-3
<i>Flufenoxuron</i>	101463-69-8	<i>Teflubenzuron</i>	83121-18-0
<i>Fluoxastrobin</i>	361377-29-9	<i>Trifloxystrobin</i>	141517-21-7

Table 11. Content iDQuant™ Pesticide Standard K1

Pesticide Name	CAS Number	Pesticide Name	CAS Number
<i>Chlorantraniliprole</i>	500008-45-7	<i>Isocarboxiprop</i>	24353-61-5
<i>Cyromazine</i>	66215-27-8	<i>Mandipropamid</i>	374726-62-2
<i>Dinotefuran</i>	165252-70-0	<i>Metaflumizone</i>	139968-49-3
<i>Ethirimol</i>	23947-60-6	<i>Pencycuron</i>	66063-05-6
<i>Fenobucarb</i>	3766-81-2	<i>Spinetoram</i>	187166-40-1
<i>Flonicamid</i>	158062-67-0	<i>Spirotetramat</i>	203313-25-1
<i>Flubendimide</i>	272451-65-7	<i>Temephos</i>	3383-96-8
<i>Halofenozide</i>	112226-61-6	<i>Trichlorfon</i>	52-68-6

Table 12. List of triazine pesticides with retention times for each

Triazines	RT (Min)	Triazines	RT (Min)
<i>Atrazine</i>	8.5	<i>Prometon</i>	8.3
<i>Ametryn</i>	7.8	<i>Prometryn</i>	9.0
<i>Cyanazine</i>	6.7	<i>Propazine</i>	8.6
<i>Desisopropyl-atrazine</i>	5.4	<i>Sebutylazine</i>	8.4
<i>Desethyl-atrazine</i>	4.0	<i>Simazine</i>	6.9
<i>Hexazinon</i>	6.9	<i>Terbutylazine</i>	8.6
<i>Metazoachlor</i>	7.8	<i>Terbutryn</i>	9.1
<i>Metolachlor</i>	9.2	<i>D5-atrazine (internal std)</i>	7.7
<i>Metribuzin</i>	7.4		

Figure 2: Chromatogram of a 300 pesticides mix spiked by API 3200™ LC/MS/MS system (100 ng/mL)

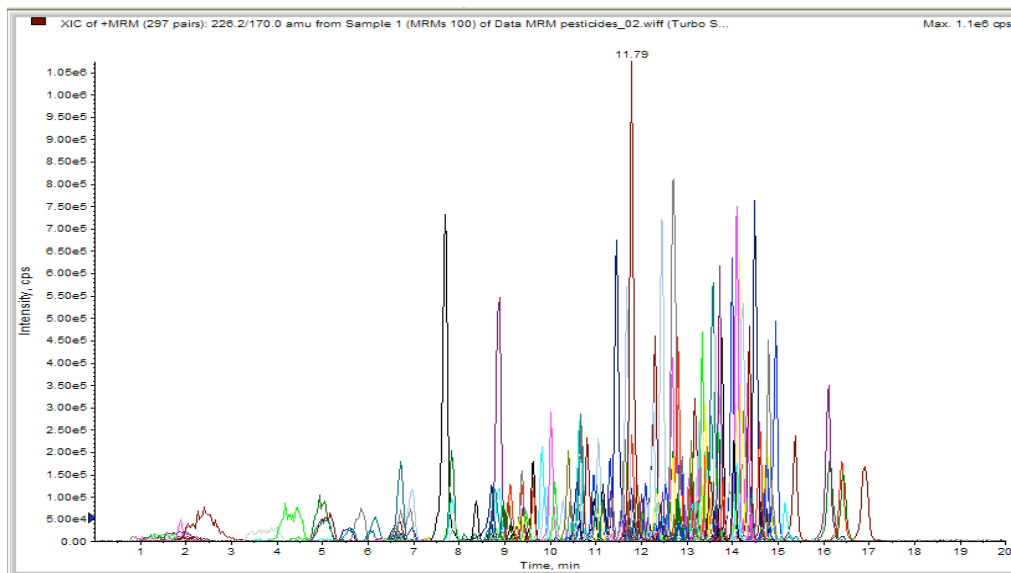
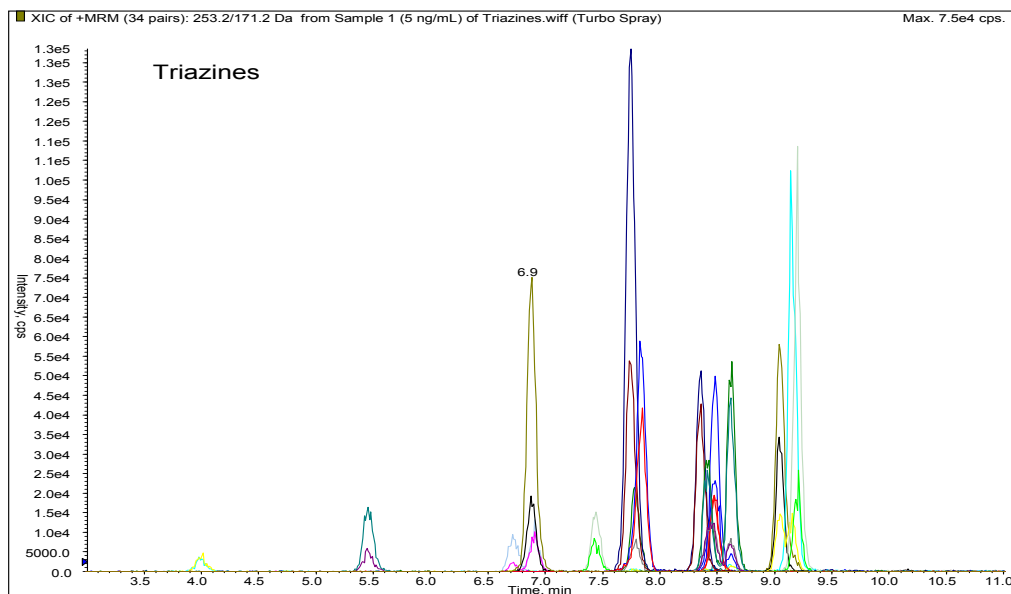


Figure 3: Chromatogram of triazine pesticides at 5 ng / mL



Get additional details on customizing a pesticide screen for your specific laboratory application by contacting AB SCIEX at support@absciex.com.

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