

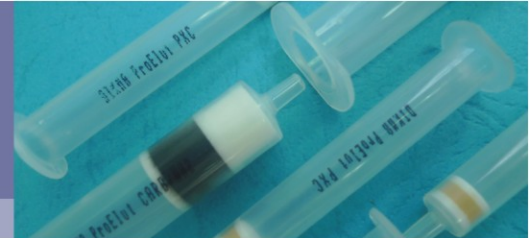
**DIKMA**®  
A reliable partner for your lab

# Dikma ProElut™ SPE & Chromatography Accessories



**Dikma Technologies Inc.**

[www.dikmatech.com](http://www.dikmatech.com) | [www.dimaglass.com](http://www.dimaglass.com)



# ProElut™ SPE

## Features of ProElut™ SPE

- Rapid sample preparation within minutes
- Higher recoveries without the formation of emulsion
- High precision of analytical results by use of disposable cartridges
- Saving of solvent and hence reduction in both material cost and cost of disposal
- Possibilities for automating the entire process
- Optimized, validated and certified manufacturing

## ProElut™ SPE Applications

- Pharmaceutical compounds and metabolites in biological fluids
- Drugs of abuse in biological fluids
- Environmental pollutants in drinking and waste water
- Pesticides and antibiotics in food/agricultural matrices
- Desalting of proteins and peptides
- Fractionation of lipids
- Water and fat soluble vitamins



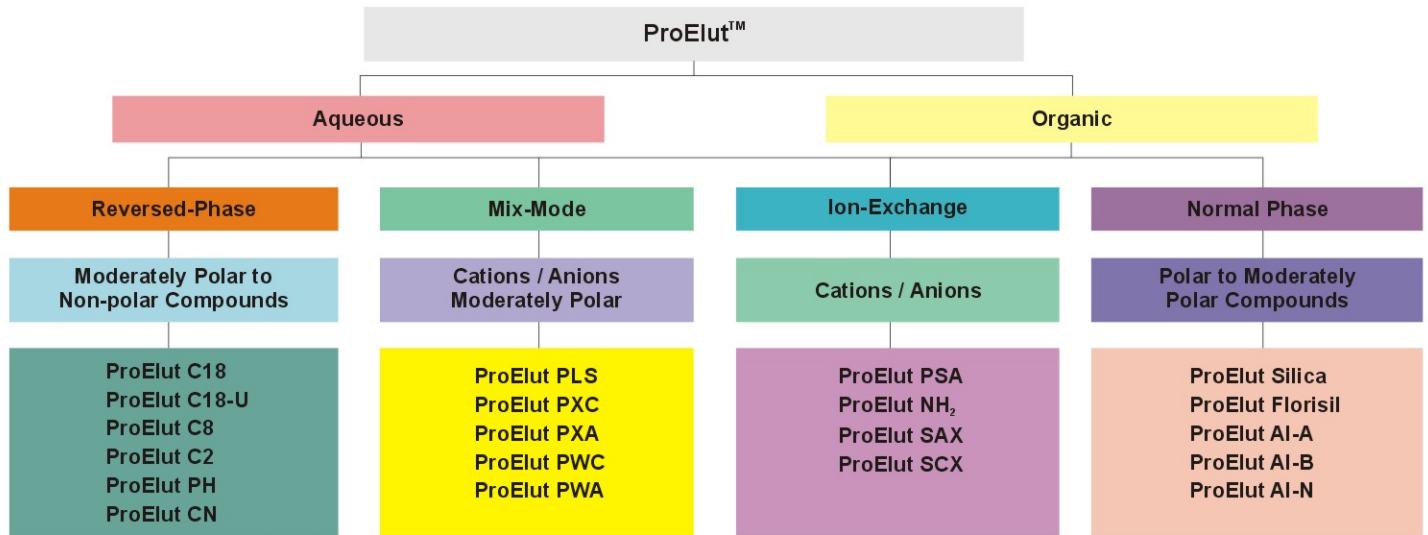
For more applications, please visit our website at [www.dikmatech.com](http://www.dikmatech.com) or refer to our current catalog.

## Sorbent Specifications

Sorbent Phase	Category	Base Material	Particle Size (µm)	Pore Size (Å)	Surface Area (m <sup>2</sup> /g)	Bonded Functional Group	Carbon Loading	Endcapped
PLS	Normal / reversed-phase	PS-DVB	50	80	800	Hydrophilic/lipophilic	-	-
PWC	Reversed-phase, weak cation exchange	PS-DVB	50	80	800	Hydrophilic / lipophilic, carboxylic acid	-	-
PWA	Reversed-phase, weak anion exchange	PS-DVB	50	80	800	Hydrophilic / lipophilic, ethylene diamine	-	-
PXC	Reversed-phase, cation exchange	PS-DVB	50	80	800	Hydrophilic / lipophilic, sulfonic acid	-	-
PXA	Reversed-phase, anion exchange	PS-DVB	50	80	800	Hydrophilic / lipophilic, quaternary amine	-	-
C18	Reversed-phase	Silica	50	60	500	Octadecyl	17%	Yes
C18-U	Reversed-phase	Silica	50	60	500	Octadecyl, silanol	17%	No
C8	Reversed-phase	Silica	50	60	500	Octyl	11%	Yes
C2	Reversed-phase	Silica	50	60	500	Ethyl	2.7%	Yes
PH	Reversed-phase	Silica	50	60	500	Phenyl	8%	Yes
CN	Reversed-phase	Silica	50	60	500	Cyanopropyl	6.5%	Yes
SCX	Strong cation exchange	Silica	50	60	500	Benzenesulfonic acid	-	-
SAX	Strong anion exchange	Silica	50	60	500	Trimethylaminopropyl	-	-
Silica	Normal phase	Silica	50	60	500	Silanol	-	No
NH <sub>2</sub>	Normal phase, weak anion	Silica	50	60	500	Aminopropyl	3.5%	No
PSA	Normal phase, weak anion	Silica	50	60	500	Ethylenediamino-N-propyl	7%	No
Al-A	Normal phase	Acidic alumina	125	-	200	Acidic alumina	-	-
Al-B	Normal phase	Basic alumina	125	-	200	Basic alumina	-	-
Al-N	Normal phase	Neutral alumina	125	-	200	Neutral alumina	-	-
Florisil	Normal phase	Magnesium	150-200	-	-	-	-	-
CARB	-	Carbon	120-400	-	100	-	-	-



## SPE Phase Selection



### Brand Cross Reference

Dikma	Waters	Agilent	Supelco
ProElut PLS	Oasis HLB	Plexa	–
ProElut PXC	Oasis MCX	Plexa PCX	–
ProElut PXA	Oasis MAX	Plexa PAX	–
ProElut PWC	Oasis WCX	–	–
ProElut PWA	Oasis WAX	–	–
ProElut C18	Sep-pak C18	BondElut C18	ENVI-18, LC-18
ProElut C18-U	–	BondElut C18-OH	–
ProElut C8	Sep-pak C8	BondElut C8	ENVI-8
ProElut C2	–	BondElut C2	–
ProElut PH	–	BondElut Ph	LC-Ph
ProElut CN	Sep-pak CN	BondElut CN	LC-CN
ProElut NH <sub>2</sub>	Sep-pak NH <sub>2</sub>	BondElut NH <sub>2</sub>	LC-NH <sub>2</sub>
ProElut PSA	–	BondElut PSA	–
ProElut Silica	Sep-pak Silica	BondElut Silica	LC-Si
ProElut SCX	–	BondElut SCX	LC-SCX
ProElut SAX	–	BondElut SAX	LC-SAX

### ProElut™ LLE+ (Liquid-Liquid Extraction)

Classical liquid-liquid extraction using a separation funnel is often associated with certain disadvantages: formation of emulsion, poor phase separation, high solvent consumption, low degree of automation and high personnel cost. However, liquid-liquid extraction can be made more efficient by using ProElut™ LLE+ cartridges. The simple and excellent performance of ProElut™ LLE+ cartridges eliminate emulsions and therefore result in higher recoveries and cleaner extractions.



### ProElut™ LLE+ Ordering Information

Phase	Max Sample Volume* (mL)	Qty	Cat. No.
LLE+	1	100/pk	62502
	3	100/pk	62503
	5	100/pk	62504
	10	100/pk	62505
	20	100/pk	62506

\* The recommended sample volume must be adhered to: solutions of smaller volume must be diluted to give indicated volume.



## ProElut™ QuEChERS

### Features of ProElut™ QuEChERS

- Fast, simple sample preparation for multi-residue pesticide analysis
- Wide selection, support AOAC 2007.01 and EN 15662 methods
- Provide guidance to help you choose the right products
- Pre-weighed, ultra-clean packaging
- Certified extraction salts and sorbents
- Individually sealed packages for enhanced protection and storage stability







### ProElut™ QuEChERS Selection Guide

#### Step 1: Selected Extraction Salt

Method	Material	Qty	Cat. No.
AOAC 2007.01	6g MgSO <sub>4</sub> , 1.5g NaOAc with 50mL Centrifuge Tube	50/pk	64520
EN 15662	4g MgSO <sub>4</sub> , 1g NaCl, 1g TSCD, 0.5g DHS with 50mL Centrifuge Tube	50/pk	64521

#### Step 2: Selected Dispersive SPE Tube

Sample Types	Method	2mL Clean-up Tube	15mL Clean-up Tube
 <p><b>General fruits and vegetables:</b> Major interferences: organic acids, carbohydrates, phenols</p>	AOAC	50mg PSA 150mg MgSO <sub>4</sub> <b>Cat# 64501</b>	400mg PSA 1200mg MgSO <sub>4</sub> <b>Cat# 64502</b>
	EN	25mg PSA 150mg MgSO <sub>4</sub> <b>Cat# 64503</b>	150mg PSA 900mg MgSO <sub>4</sub> <b>Cat# 64504</b>
 <p><b>Fruits and vegetables with fats and waxes:</b> Major interferences: lipids, sterols, organic acids, carbohydrates, phenols</p>	AOAC	50mg PSA 50mg C18 150mg MgSO <sub>4</sub> <b>Cat# 64505</b>	400mg PSA 400mg C18 1200mg MgSO <sub>4</sub> <b>Cat# 64506</b>
	EN	25mg PSA 25mg C18 150mg MgSO <sub>4</sub> <b>Cat# 64507</b>	150mg PSA 150mg C18 900mg MgSO <sub>4</sub> <b>Cat# 64508</b>
 <p><b>High pigment fruits and vegetables:</b> Major interferences: chlorophyll, carotenoids, organic acids, carbohydrates, phenols. Not for use with planar pesticides</p>	AOAC	50mg PSA 50mg Carb 150mg MgSO <sub>4</sub> <b>Cat# 64509</b>	400mg PSA 400mg Carb 1200mg MgSO <sub>4</sub> <b>Cat# 64510</b>
	EN	25mg PSA 7.5mg Carb 150mg MgSO <sub>4</sub> <b>Cat# 64511</b>	150mg PSA 45mg Carb 900mg MgSO <sub>4</sub> <b>Cat# 64512</b>
 <p><b>Fruits and vegetables with pigments and fats:</b> Major interferences: chlorophyll, carotenoids, lipids, organic acids, carbohydrates, phenols. Not for use with planar pesticides</p>	AOAC	50mg PSA 50mg C18 50mg Carb 150mg MgSO <sub>4</sub> <b>Cat# 64513</b>	400mg PSA 400mg C18 400mg Carb 1200mg MgSO <sub>4</sub> <b>Cat# 64514</b>

- Sorbent listed in the table has been pre-weighed and placed in centrifuge tube
- PSA**: Primary-secondary amine silica bonded sorbent
- C18**: Octadecyl silica bonded sorbent
- Carb**: Graphitized carbon black



# ProMax™ Syringe Filters

## Features of ProMax™ Syringe Filters

- Broad range of membrane types
- HPLC and GC sample and solvent filtration
- Convenient, cost-effective
- Standard Luer lock



ProMax™ syringe filters are designed for the economical, rapid filtration of almost any solution prior to analysis. The housing attaches to any standard Luer lock syringe, so the sample can be pushed through the membrane under pressure. The resulting eluent is free from particulates and ready for use with HPLC, GC or other analytical techniques.

ProMax™ syringe filters are available in a broad range of pore sizes and membrane types. All are non-sterile. Filters made with 13mm or 25mm membranes are suitable for use with samples of 1mL or greater. All filters are available in CA, Nylon, PVDF, PES, GF or PTFE membranes.

Type	Porosity (µm)	Qty	4mm	13mm	25mm
ProMax–NYLON	0.22	100/pk	30021	37177	37184
	0.45	100/pk	30022	37180	37187
ProMax–PTFE	0.22	100/pk	30023	37178	37185
	0.45	100/pk	30024	37182	37192
ProMax–CA	0.22	100/pk	–	30009	30011
	0.45	100/pk	–	30010	30012
ProMax–PVDF	0.22	100/pk	–	30013	30015
	0.45	100/pk	–	30014	30016
ProMax–PES	0.22	100/pk	–	30017	30019
	0.45	100/pk	–	30018	30020
ProMax–GF/NY	0.45	100/pk	–	–	54839
ProMax–GF/PTFE	0.45	100/pk	–	–	54840
ProMax–GF/CA	0.45	100/pk	–	–	54838

# Autosampler Vials

## 9mm Wide Opening Screw Thread Vials

- Superior thread design provides a more secure seal to the closure
- 40% larger neck opening versus standard opening screw top vials improve sample accessibility
- Uniformly flat bottom with inserts for security
- Write-on patches with graduations at 0.5, 1.0 and 1.5mL
- Compatible with most HPLC/GC autosamplers



Description	Qty	Cat. No.
Clear	100/pk	5320
Clear with Label	100/pk	5321
Amber	100/pk	5322
Amber with Label	100/pk	5323

## Assembled Caps and Septa for 9mm Screw Thread Vials

- Cap manufactured from polypropylene
- Pre-assembled caps and septa are convenient and minimize contamination from handling
- Available in 2 colors
- Choice of liner

Description	Qty	Cat. No.
Screw Cap, Blue, Open Top, with PTFE / red rubber septa	100/pk	5324
Screw Cap, Blue, Open Top, with PTFE / white silicone septa	100/pk	5325
Screw Cap, Blue, Open Top, with PTFE / silicone / PTFE septa	100/pk	5326
Screw Cap, Blue, Open Top, with Pre–slit PTFE / silicone septa	100/pk	5327
Screw Cap, Blue, Open Top, with PTFE / ULB silicone septa	100/pk	5328
Screw Cap, Blue, Open Top, with Pre–slit PTFE / ULB silicone septa	100/pk	5329



## About Dikma

Dikma Technologies Inc., established in 1993, is a global technology leader committed to developing novel separation and purification solutions for life sciences and related industries. Our core technology portfolio includes products for liquid chromatography, gas chromatography, sample preparation, and bulk purification chromatographic media. We also provide related chromatography accessories.

## Quality

Dikma Technologies Inc. is an ISO 9001:2000 Standard Quality Assessed Company to ensure the quality and reliability of our products and services. We are dedicated to the highest standards of production, quality assurance and quality control.

## Value

Dikma Technologies Inc. is committed to bringing maximum value to its customers.



**DIKMA**<sup>®</sup>  
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