Analytical Support Lab



CUSTOM METHOD DEVELOPMENT

and Optimization Services



- Vitamins
- Pain Management Drugs
- Therapeutic Drug Monitoring
- Steroids and Hormones
- Illicit Drugs
- And More!

A majority of our services are free of charge! Find out what PhenoLogix can do for your lab.





The Global Leader in Separation Sciences

Since 1982, Phenomenex has dedicated its resources to creating and delivering premium quality products for separation sciences. Today, we are a global leader with offices in 15 countries and direct sales and/or distribution in more than 65 others.

But what truly sets us apart is our outstanding customer service. Our customers are the lifeblood of our business, and we are constantly striving to provide the highest level of service and support in the industry.

It's this fanatical commitment to our customers that led to the creation of an in-house analytical development group devoted solely to supporting our customer's projects and application needs: PhenoLogix⁵⁰⁰





PhenoLogix: A NEW Analytical Support Laboratory

- Personalized Solutions
- Experienced Staff
- Fast Project Turn Around Time
- Confidential
- Immediate Availability
- Award Winning Customer Service

PhenoLogix is a full-service analytical support laboratory within Phenomenex that specializes in method development and optimization for the most challenging clinical research applications. Our team includes highly experienced scientists who have previously worked at large clinical diagnostic companies, toxicology laboratories, and mass spectrometry instrument manufacturing companies. Let us provide customized solutions to help streamline your development efforts.

PhenoLogix is committed to making the experience of working together easy, effortless, and rewarding. Get started today, and let us exceed your expectations.



How Can We Be of Service?

HPLC | UHPLC | LC/MS/MS | GC | GC/MS | Sample Preparation

- New Method Development and Optimization
- Method Improvement (Without the Need for Re-Validation)
- Hands-On Training
- Consulting
- On-Site Method Transfer

PhenoLogix offers different levels of support based on your company's needs, ranging from simple column screening services to method development and optimization. We are also more than happy to send one of our scientists to your lab to help solve a problem hands-on or to provide training seminars and professional consulting services.

A majority of our service offerings are free of charge. For those requiring an additional cost, pricing will be disclosed and approved prior to beginning a project.

We have the products, the expertise, and most importantly, the time to help with your projects. A PhenoLogix representative is available today to discuss your project to see how we might be able to help!

SEAN ORLOWICZ TECHNICAL MANAGER, PHENOLOGIX





Imagine Having Access to Unlimited Products and Resources

We know that choosing the most appropriate sample preparation technique and HPLC or GC column can be a daunting task, let us simplify the process. PhenoLogix scientists have a wide variety of sample preparation solutions as well as every HPLC and GC column phase, particle size, and dimension in the Phenomenex catalog at their disposal. Because we work very closely with our R&D team, we also understand the underlying phase chemistry and the unique advantages each product can contribute to a separation. This unique combination allows us to quickly evaluate different options before arriving at the best possible method.

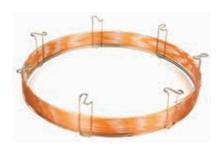
























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We Solve Our Customers Toughest Challenges

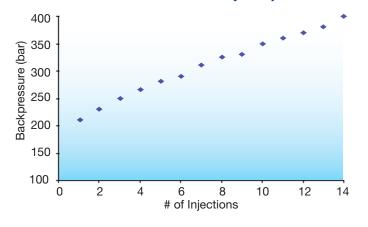
CHALLENGE

When performing urine drug testing, most laboratories opt for a dilute-and-shoot approach after enzymatic hydrolysis however this can result in fouling of the LC column and loss of productivity. Working together with a large toxicology laboratory in the United States, PhenoLogix was tasked to improve productivity by extending column lifetime without adding significant cost or sample preparation time.

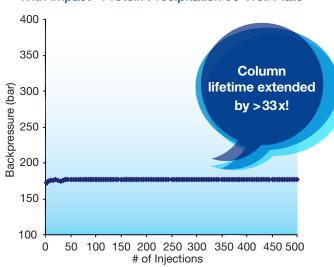
SOLUTION

	Original Method	PhenoLogix Optimized Method
Sample Preparation Method	Dilute-and-Shoot ~10 minutes	Rapid β-Glucuronidase Removal ~15 minutes
HPLC Column Backpressure	200 - 400+ bar	~ 200 bar
HPLC Column Lifetime	15 injections	> 500 injections

Premature Column Death after Only 15 Injections



Stable Backpressure after Cleanup With Impact™ Protein Precipitation 96-Well Plate



RESULTS

The large toxicology laboratory has now implemented a rapid sample preparation procedure that extends HPLC column lifetime by more than 33x without significant time or cost requirements.

See the resulting method at www.phenomenex.com/PLcasestudy



CHALLENGE

Vitamin B1 and B6 phosphate metabolite analysis is traditionally a two method process as Vitamin B1 is analyzed from blood and Vitamin B6 is analyzed from plasma. In an effort to streamline analysis, a large clinical laboratory in the Netherlands tasked PhenoLogix to develop a single method to simultaneously derivatize, extract, and quantify Vitamins B1 and B6 from whole blood that is simple, rapid, and reliable.

SOLUTION

	Original Method (two methods required)		PhenoLogix Optimized Method
Vitamin Analyzed	Vitamin B1	Vitamin B6	Vitamin B1 and B6
Sample Matrix	Whole Blood	Plasma	Whole Blood
Extraction Technique	Protein Precipitation and Liquid-Liquid Extraction	Protein Precipitation	Protein Precipitation
Approximate Sample Preparation Time Required	~ 2-3 hours	~ 40 minutes	~45 minutes with derivatization
	Total Combined Time Required: > 3 hours		with derivatization

RESULTS

PhenoLogix provided a simple, fast, and easy method for the simultaneous analysis of Vitamins B1 and B6 from whole blood. By combining Vitamin B1 and B6 into a single extraction and LC/UV method, the laboratory was able to significantly reduce the amount of time and solvent dedicated to this work. In addition to time and solvent savings, the method included a neutralization step after the extraction procedure which extended HPLC column lifetime.

See the resulting method at www.phenomenex.com/PLcasestudy

Easy Method Transfer Back to Your Lab

To ensure easy method transfer, the PhenoLogix laboratories have multiple vendors' instrumentation. We will do our best to match the configuration of our systems to those in your laboratory. In some cases, we may recommend low cost modifications that can be made to improve method performance.

Abbreviated List of Instrumentation*

HPLC

- Agilent®: 1050, 1100, 1200, 1260, and 1290
- Waters®: Alliance HPLC® and ACQUITY® UPLC®
- **Shimadzu:** LC10[™], LC20[™], Prominence[™] UFLC[™], and Nexera[™]
- JASCO®: X-LC™
- Gilson: GX-271 Preparative HPLC
- Thermo®: Cohesive TurboFlow TLX-1
- Detectors: UV/VIS (DAD, MWD, VWD), ELSD, and Fluorescence

GC & GC/MS

- Agilent®: 5890 Series I, 5890 Series II, 6890, and 6890/5973-MS
- Shimadzu: GC-2010plus[™], GC/MS QP-2010S[™], and GCMS-QP2010 Ultra[™]

LC/MS/MS

- SCIEX: API 3000[™], API 4000[™], 4000 QTRAP[®],
 Triple Quad[™] 4500, and API 5000[™]
- **Bruker:** Esquire 2000[™]

Liquid Handlers for Solid Phase Extraction (SPE)

- PerkinElmer: MultiPROBE® II PLUS HT
- **Gilson:** GX-274 ASPEC™
- Tecan: Freedom EVO® 100

*Don't see the instrument you are looking for? This is only a partial list because we are adding instrumentation on a regular basis. Check with a PhenoLogix representative to see if the instrument you need is available.





PhenoLogix has been really responsive and provided us with a solution within 10 days. The method that was suggested was perfectly adapted to our routine laboratory and we had no problem doing the validation.

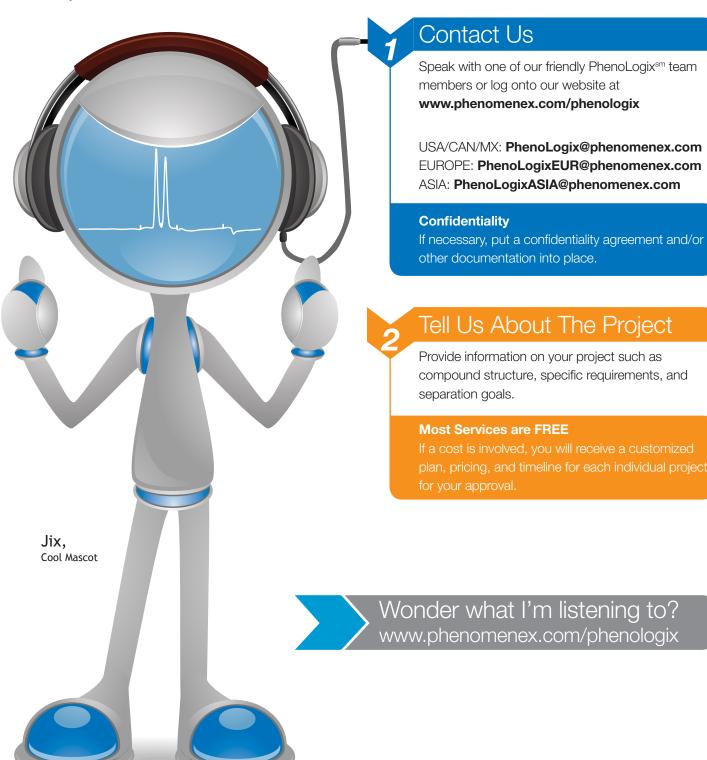
We are ready to use PhenoLogix again if needed. **9 9**

GILBERTE SANTUNE HAPPY PHENOLOGIX CUSTOMER

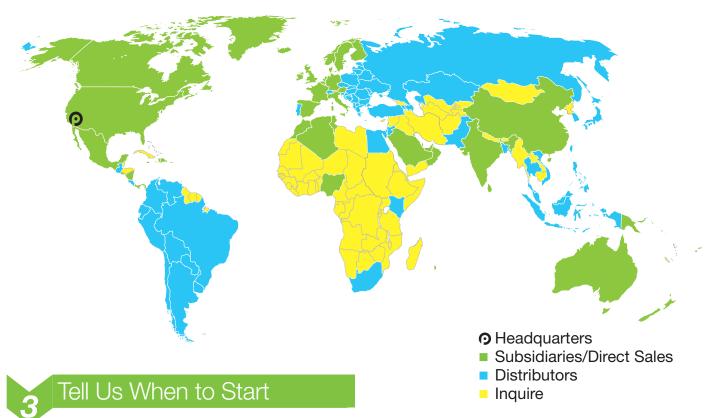


Get Started Today – We Make it Easy

We guarantee a great experience when working with our team. All of our project managers are enthusiastic and dedicated to you, our valued customer.







Approve our proposal and we'll get to work on your project!

Open Lines of Communication

While working on your project, we will hold regular meetings to update you on our progress until you are satisfied with the final method

Project is Complete!

A detailed report is sent to you, including full method, materials, chromatograms, and discussion.

Method Transfer

We make sure the method works in your laboratory either by supporting your efforts via teleconference or sending a PhenoLogix representative to your lab. We don't finish until you are happy!

Relax!





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