



Stable isotope labelled  
compounds for research  
and analysis

Precision tools for innovative science

Science for a Safer World

[www.qmx.com](http://www.qmx.com)



# Global leaders in stable isotope labelling

LGC Standards has been at the forefront of stable isotope chemistry for more than four decades, building one of the world's most extensive portfolios with over 20,000 research chemicals and reference standards. From APIs and metabolites to impurities, biomarkers and food and environmental contaminants, our standards underpin critical research, development and testing worldwide. Here we showcase the breadth of our portfolio, the depth of our expertise and the quality formats we offer to support your work.

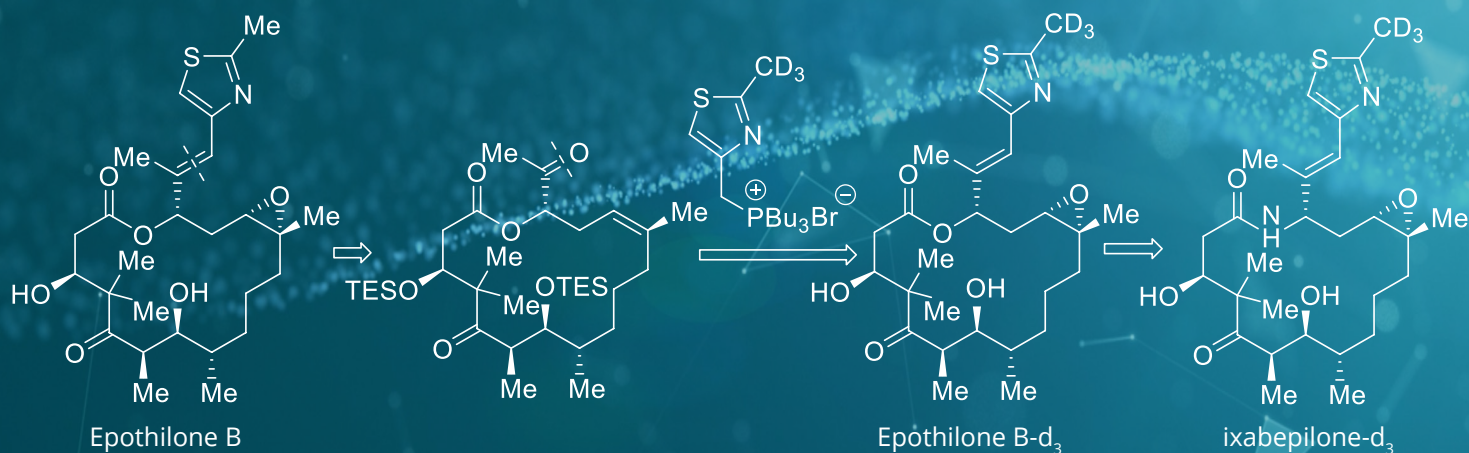




# Specialist support for trace level analysis

We understand the challenges of trace-level detection in complex sample types. Drawing on decades of expertise in stable isotope labelling, we provide bespoke standards – from D and  $^{13}\text{C}$  to  $^{15}\text{N}$ ,  $^{18}\text{O}$  and multi-labelled compounds – designed to ensure consistent fragmentation and dependable results in matrices such as serum, plasma, soil and food.

We design novel synthetic routes to deliver the standards you need, such as the synthesis of anti-cancer API standards Epothilone B- $\text{d}_3$  and ixabepilone- $\text{d}_3$  from Epothilone B, using ozonolysis, deoxygenation, Wittig reaction, Pd(0)-catalysed azidation, Staudinger reaction, and macrolactamisation.



# Delivering quality in every format

Our trusted brands – TRC, CDN Isotopes, Dr Ehrenstorfer, Lipomed and LoGiCal – work together across our global network to deliver the flexibility you need. From research grade to ISO 17034–accredited materials, and from powders to ready-to-use or multi-analyte solutions, we provide standards in the quality and format that best support your work.

These capabilities are underpinned by TRC's new state-of-the-art 200,000 sq. ft. research and production facility – launched in 2025 to accelerate innovation, expand production capacity and enhance service delivery.



ISO 17034 accredited manufacturers



# Products for innovative research and analysis

We help to deliver global scientific innovation via the broadest available range of stable isotope labelled compounds, and a comprehensive synthesis service that provides your laboratory with tailored solutions.

## Our product range includes:

APIs

Metabolites

Impurities

Bioactive molecules

Chemical probes

Building block / fragments

Metabolic probes

Biomarkers

Controlled substances

New psychoactive substances

Opiates

Food contaminants

Phytochemicals

PAHs

Pollutants

Pesticides

PFAS

PCBs

Dioxins

VOCs

Personal care

Polymeric materials

Coatings

Energy storage

# The LGC Standards family



## Products:

20,000+ stable isotope labelled analytical standards available as neat substances, or ready-to-use solutions. Optional COA upgrade with 100% mass balance.

## Sectors:

Life sciences, pharmaceutical, food, environmental, and industrial.



## Products:

500+ stable isotope labelled reference materials, available as neat substances or ready-to-use solutions. Many are produced to ISO 17034 standards.

## Sectors:

Food, environmental, and specialised industrial testing.



## Products:

More than 550 stable isotope labelled reference materials, available as solutions or neat substances. Many are produced to ISO 17034 standards.

## Sectors:

Clinical and forensics specialists.



# Expanding innovation: TRC's new state-of-the-art facility

## Location:

101 Milani Blvd.,  
Vaughan,  
Ontario

## Facility:

TRC's state-of-the-art facility, which became fully operational in 2025 and spans over 200,000 square feet (sq. ft), including:

53,000

sq. ft of production laboratories

10,000

sq. ft of analytical labs

12,000

sq. ft allocated for finished goods



### Fostering innovation and collaboration:

Our modern facility attracts top talent, including over 100 PhD- and MSc-qualified scientists, fostering teamwork and creativity to drive innovation.



### Efficient operations for faster service:

A streamlined layout and unified workspace improve efficiency, enabling faster delivery times.



### Sustainable innovation and superior service:

By integrating green chemistry, advanced technologies, and sustainable practices – including energy-efficient lighting and high-performance glazing – we conserve resources and reduce emissions.



### Wider range with more in stock products:

A larger facility and advanced equipment allow us to expand our 100,000+ portfolio and 50,000+ inventory, accelerating development to meet diverse customer needs.



### Improved compliance capabilities:

With expanded capacity for managing Health Canada-controlled substances, we can accommodate larger orders with greater flexibility.





# “If it can be made, we will make it”

– TRC founder, David Dime

**We specialise in producing complex organic small molecules that are not otherwise commercially available.**

Where a compound is unavailable on the market, our project planning team of experienced chemists will design optimal synthetic routes for both new and known compounds.



# Your three-step custom synthesis solution

## Step 1

### Consultation:

We will assess the feasibility of the product – including the optimal synthetic route and timeline – and prepare a detailed quote. If feasible, the work can proceed either as an exclusive project for you or be made available more widely. We will keep you closely involved, with regular project updates.

## Step 2

### Synthesis:

Once the consultation phase is finalised and agreed, synthesis can start. We will share a time frame with you and discuss progress – as well as any troubleshooting.

## Step 3

### Quality assurance and delivery:

At this stage, your product is almost ready. We will perform all the analysis you require and generate your detailed COA. Your product is now ready to be shipped to you.

**Need help with a project?** Contact us today [↗](#)

# Life science research and drug discovery

Our high-quality stable isotope labelled compounds are essential tools for investigating disease mechanisms and accelerating therapeutic discovery. By enabling precise quantification, metabolism tracking, and toxicity assessment, they support innovation across research and development.

## Drug targets



GPCRs



Enzymes



Ion channels



Nuclear receptors



Transporters

## Therapeutic areas



Neuroscience



Cancer research



Infectious disease



Cardiovascular research



The microbiome

From pathway analysis to formulation and safety testing, our products support the full development pipeline – driving reliable data, faster optimisation, and better decisions.

- API standards, analogues, metabolites
- Bioactive molecules
- Impurities and excipients
- Chemical probes
- Building blocks and fragments
- Biomarkers of toxicity, drug-drug interaction and disease
- Metabolic probes (APIs and substrates)



LoGiCal®

[View range](#)

# Pharmaceutical quality control and method development

**With advancing technology and evolving regulatory expectations, laboratories face growing pressure to meet higher analytical standards to support product quality.**

Our stable isotope labelled compounds help you rise to that challenge – supporting trace-level detection of impurities, correcting for

matrix effects, and confirming peak identity. They also enable reliable monitoring of contaminants such as extractables, leachables, and nitrosamines in complex formulations. Whether used in method development or routine analysis, these tools support more accurate and reproducible testing throughout the product lifecycle.

- API standards, metabolites and excipients
- Impurities and process contaminants
- Small molecule nitrosamines and nitrosamine drug substance related impurities
- Extractables and leachables



[View range](#) 

# Clinical and forensics

Our stable isotope labelled standards support routine testing, as well as the development of sensitive, robust methods for detecting and quantifying analytes in biological matrices – such as blood, plasma, and urine.

These analytes include APIs, metabolites, impurities, clinical biomarkers, and toxic or banned substances – such as drugs of abuse and performance-enhancing compounds.

API standards, metabolites  
and impurities

Metabolic probes  
(APIs and substrates)

Clinical biomarkers

Antiepileptics

Antipsychotics

Antibiotics

Anticancer drugs

New psychoactive substances

Sports drugs and steroids

Cannabinoids

Smoking-related substances

Opiates and opioids

Benzodiazepines

Cocaine and related materials



LoGiCal®

[View range](#)





# Food and environmental research and analysis

Our comprehensive range of stable isotope labelled reference standards supports research, method development, and regulatory testing across food and environmental applications.

From early-stage studies to routine monitoring, these standards enable accurate identification and quantitation of contaminants and residues in complex matrices – including food products, soil, air, and water – ensuring robust results and regulatory compliance.

Pesticides and metabolites

Food contaminants

Pharma/vet compounds and metabolites

PCBs and related compounds

Polycyclic Aromatic Hydrocarbons (PAHs)

Food contact materials

Perfluoroalkylated Substances (PFAS)

Mycotoxins

Dioxins and furans

Volatile Organic Compounds (VOCs)



[View food range](#) 

[View environmental range](#) 





# Industrial

Whether you're pushing the limits of advanced materials or validating everyday formulations, our stable isotope labelled reference standards deliver the precision you need. From supporting new product development to detecting trace-level contaminants, we help solve complex analytical challenges across sectors including personal care, packaging, polymers, coatings, and energy storage.

## Persistent organic pollutants

PFAS

PCBs

Dioxins and furans

Flame retardants

## Industrial contaminants

PAHs

VOCs

Alkylphenols

Monomers

## Plasticisers and additives

Phthalates

Bisphenol

Antioxidants

UV stabilisers

## Battery and e-waste

Electrolyte additives

Fluorinated solvents

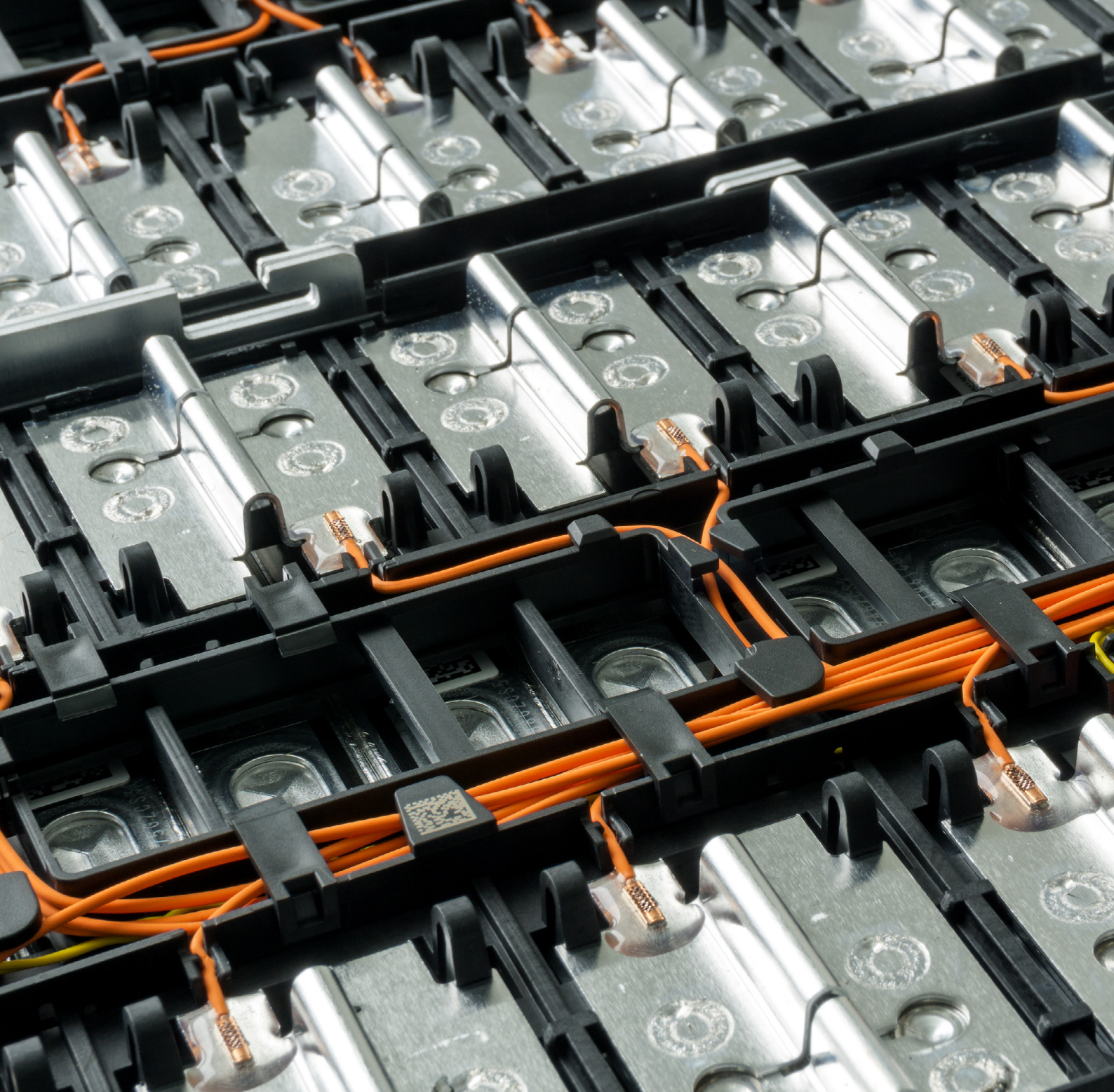
Conductive polymers

Degradation by-products



[View range](#) 





# LGC Standards' portfolio: key features and benefits



20,000+

stable isotope labelled products.  
Search for the product you need on  
our user-friendly platform.



Global logistics

Competitive lead times and compliant  
services with international delivery.



Scientific excellence

100+ PhD- and MSc-qualified scientists  
developing our products.



Custom synthesis

Cost-effective service, manufacturing new  
compounds for specific customer needs.



Customer care

Delivering tailored information  
and technical support.



Diverse range

Providing you with a complete portfolio of  
frequently used and unique stable isotope  
labelled compounds.

[View range](#) 

[Speak to an expert](#) 



## Multiple quality formats

Across the LGC Standards family, we offer high-purity materials in a range of formats – spanning 100% mass balance, ISO 17034 accreditation, and ready-to-use solutions and mixes for diverse applications.



## Low minimum order quantity

Enabling you to order new products cost-effectively.



## Varied pack sizes

Offering select sizes to meet your individual requirements.





1224 Lit. No.120099W



| A CALIBRE SCIENTIFIC COMPANY

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www.qmx.com info@qmx.com

## Speak to an expert

See how we can support your testing  
[qmx.com/contact](http://qmx.com/contact)

