



Megazyme

Industries we Serve

Diagnostic Products for Quality Management Nutritional Analysis & Research

Megazyme



Megazyme

Diagnostic Products for Quality Management

For over 30 years Megazyme products have provided solutions to the food quality market with a range of high-quality products setting new standards in accuracy, reliability and convenience for customers around the world.

Customer Focused Solutions

Our readily available diagnostic tests have been created with our customer's needs in mind. They are applicable to a wide range of industries and deliver accurate and reliable results.

The Industries We Serve:



Commercial
Laboratories



Research
Laboratories



Processed Food
& Beverages



Enzyme Manufacturing
& Biotechnology



Cereals /
Dietary Fiber



Dairy & Infant
Formula



Wine



Malting, Brewing &
Distilling



Animal / Pet
Food



Biofuels

Our Product Types:

Assay Kits

Enzymes

Carbohydrates

Enzyme
Substrates

Suitable for:

- commercial laboratories providing analytical services to third party customers
- processed food, beverage and animal feed manufacturers: for raw material / in-process / QC analysis & labelling
- R&D personnel in academia/industry

Megazyme

Processed Food



As a global leader in the measurement of dietary fiber, starch, enzymes, polysaccharides and sugars, Megazyme has a strong track record of innovation and customer engagement in the food and cereal industries.

We offer a range of solutions for the following analytes:

Dietary Fiber	Starch & Available Carbohydrates	Polysaccharides & Fiber Components
Sugars & Alcohols	Organic Acids	Enzyme Activities

Our Focus

Serving analysts around the world, we understand the need for high-quality, cost-effective products that deliver reliable results.

Our product range for the processed food industry includes products to measure:

- dietary fiber and fiber components (e.g. fructan, cereal β -glucan and resistant starch)
- starch and carbohydrate content in food products
- active ingredients in nutritional supplements and nutraceuticals (e.g. β -glucan derived from mushrooms and yeasts)
- sugars including glucose and lactose
- key organic acids for food and beverage manufacturing (e.g. lactic acid and malic acid)
- enzymes involved in cereal processing



Megazyme

Dairy

Our products for the dairy and infant formula industries are used in quality control processes all over the world. Manufacturers rely on our assay kits and reagents to ensure product quality and to meet regulatory and labelling requirements.

Our latest product, the Megazyme Lactose Assay Kit (K-LOLAC) has been accepted as an Official Final Action Method: **AOAC 2020.08**. It is the *first* enzymatic method for the measurement of lactose in low-lactose and lactose-free products validated by a multi-laboratory evaluation.

We offer a range of solutions for the following analytes:

Lactose	Lactic Acid	Urea/Ammonia
Fructan/FOS	Polydextrose	D-Glucose

Our Focus

Supporting dairy and infant formula manufacturers with the most accurate products on the market to measure:

- lactose in dairy samples, including milk-based products that are to be marketed as 'low-lactose' or 'lactose-free' due to consumer dietary requirements
- dietary fiber components such as FOS and polydextrose, used in a wide range of food products
- lactic acid and other compounds formed during fermentation/maturation
- urea and other key nutritional markers for dairy herds



Megazyme

Beverage



Maltsters, brewers, distillers, winemakers, juice and other beverage manufacturers can all benefit from the wide range of Megazyme's product offerings and technical expertise. Our diagnostic products, often unique, allow for raw material analysis, process manufacturing control and correct labelling to ensure product quality and consistency for manufacturers of all sizes.

We offer a range of solutions for the following analytes:

Malt & Adjunct Enzyme Activities	Sugars	Organic Acids
Fermentation Analytes (YAN)	Ethanol	Sulfites & Aldehydes

Our Focus

Allowing beverage manufacturers to accurately monitor key analytes from raw materials to end-products. A wide range of our products are compatible with Official methods from various beverage associations (e.g. EBC, ASBC, OIV, etc.) and allow compliance with existing legislation mandated in these highly regulated industries.

Our range for the beverage industry includes products to measure:

- sugar content including fructose, glucose, maltose and sucrose
- yeast assimilable nitrogen, ammonia, ethanol and other important analytes for fermentation process control
- organic acids including malic, lactic and acetic acid to monitor the manufacturing process
- key enzymes for the malting and brewing industry (e.g. β -amylase, α -amylase, limit-dextrinase, β -glucanase and xylanase)
- ethanol content including in those beverages to be labelled as alcohol-free products
- sulfite content in wine with the possibility of measuring either free or total sulfite content



Megazyme

Research

The Megazyme product range has been designed by scientists, for scientists. We serve the needs of researchers with our signature range of well-characterised ultra-pure and recombinant enzymes, plus an unrivalled range of exclusive high purity oligosaccharide and/or polysaccharide standards that are useful for enzyme characterisation and chromatography applications.

We offer a range of products to cater for carbohydrate research:

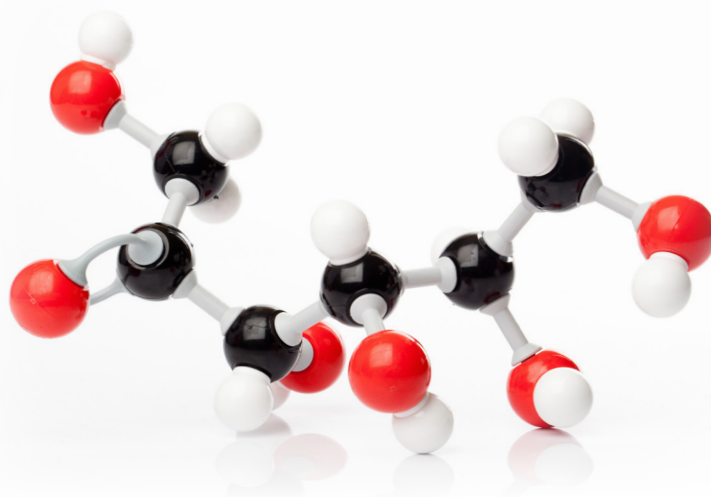
Ultrapure & recombinant CAZy enzymes	Oligosaccharide standards	Polysaccharides for enzyme research
Colourimetric enzyme substrates		

Our Focus

The Megazyme range of products is synonymous with purity: we know that researchers in academia and industry require ultra-pure and well-characterised products for their R&D needs and we strive to deliver that solution. Our strength is in carbohydrate research and we offer both enzymes and standards to cater for this branch of science in addition to our well-known analytical enzymes.

Our range of products is suitable for:

- CAZy enzymes discovery and characterisation through native oligo- and polysaccharide products
- high-throughput enzyme activity studies using solution-based colourimetric enzyme substrates
- carbohydrate research studies thanks to a range of CAZy enzymes and carbohydrate standards
- enzyme activity measurement using practical tablets and dyed substrate assay formats



Megazyme

Animal Feed



We understand the challenges of an ever-changing animal feed market and the various needs of livestock during different stages of their life. The increasing demand for meat and animal products and the concern for animal welfare, combined with a gradual worldwide ban on the use of antibiotics, makes animal nutrition of paramount importance. Our test kits, reagents and substrates are designed to help enzyme manufacturers for animal feed, animal nutritionists and feed manufacturers monitor the properties of their raw materials, the efficiency of their processes and the quality of their finished product.

We offer a range of solutions for the following analytes:

Starch	Sugars	β -Glucan (cereal & yeast)
Phytic Acid	Xylanase	β -Glucanase
Phytase	<i>endo</i> -Cellulase	Mannanase

Our Focus

We strive to meet the analytical requirements of animal feed and animal feed ingredient manufacturers and offer a range of often unique products that are suitable for the measurement of key nutritional analytes, anti-nutrients, nutraceuticals and enzyme-based processing agents.

Our range for the animal feed manufacturing industry includes products to measure:

- key enzyme activities that improve animal digestion and growth and need to be monitored both at enzyme manufacturing and feed production stages
- starch, the principal nutrient in all animal diets
- prebiotic content such as yeast β -glucans
- free sugars content in feed
- anti-nutrients such as phytic acid and cereal β -glucan



Megazyme

Enzyme Manufacturing, Fermentation & Bioenergy

We offer unrivaled expertise in diagnostic solutions to measure enzymatic activity using sensitive, user-friendly methods to be employed either for routine QC applications or for the discovery and development of new enzyme preparations.

We offer a range of solutions for the following analytes:

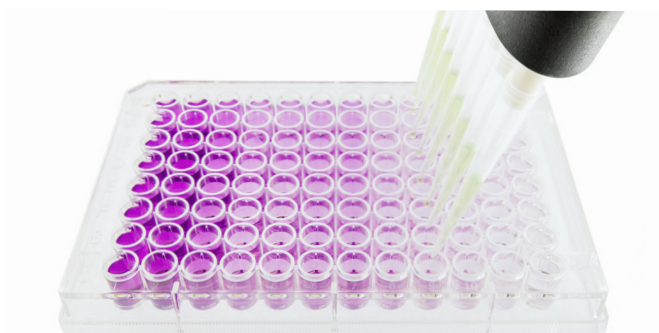
<i>endo</i> -Xylanase	α -Amylase & β -Amylase	<i>endo</i> -Cellulases
Protease	Amyloglucosidase	β -Glucanase
Pullulanase & Limit dextrinase	<i>endo</i> -Mannanase	Phytase

Our Focus

We understand the needs of enzyme manufacturers and the bioenergy and fermentation industries and have developed a wide range of diagnostic products to help improve their enzyme discovery processes and characterisation of their products.

Our portfolio includes products to measure:

- enzyme activities for a wide range of industries, including food and animal feed manufacturing, brewing and bioenergy
- specific enzyme activities in commercial enzyme preparations that contain complex mixtures of enzymes
- key enzyme activities in cereal-based raw materials such as wheat and malts to determine their suitability for food manufacturing
- enzyme activities using automatable solution-based assay kits for high-throughput screening





Contact your local sales representative for further details

Megazyme





Diagnostic Solutions
for Food & Beverage Manufacturers

Megazyme

Rapid Results
Validated Methods
Straight From The Experts

Diagnostic Products for Quality Management in Food and Beverages



Processed Food
& Beverages



Cereals /
Dietary Fiber



Dairy & Infant
Formula



Wine



Malting, Brewing
& Distilling



The Challenge

Maintaining consistently high quality products and manufacturing standards for the dynamic, highly regulated food industry, whilst balancing product consistency, safety and innovation.

The Solution

Rapid, accurate, robust and automatable enzyme-based analytical solutions to meet customer's needs and requirements

Our customer focused solutions address:

- consumer demand for evidence based nutritional information
- manufacturer requirements for regulatory compliance for accurate food labelling
- manufacturer needs for product consistency and quality



Megazyme

What are you Testing for in your Sample?

Whether testing for fiber content in food, or lactose levels in milk - we have a diagnostic solution for you.

Megazyme product categories include:

Assay Kits

Enzymes

Carbohydrates

Enzyme
Substrates

Suitability for All Types of Assay Formats

Our standard kits are designed to be used with a spectrophotometer and automated analysis is possible with the majority of our kits. The flexibility of either spectrophotometer or automated analysis is appealing to manufacturers of different sizes with diverse sample volume analysis needs.



The Megazyme Advantage

Results that are fast, accurate, and reliable.

- Over 30 years of ground-breaking innovation in analytical methods
- Diagnostic products for a wide range of analytical needs
- Products of the highest quality
- Officially validated methods
- Excellent in-house technical support

Validated Methods

Internationally renowned methods, many of which were originally developed by our own scientists.

Validations from AOAC, CODEX and compatibility with validated methods from ASBC, EBC, OIV & other governing bodies, guarantee trusted analytical results.



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Polysaccharides & Fiber Components

Sugars & Alcohols

Organic Acids

Enzyme Activities

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Beverage



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Our range for the beverage industry includes products to measure:

- sugar content including fructose, glucose, maltose and sucrose
- yeast assimilable nitrogen, ammonia, ethanol and other important analytes for fermentation process control
- organic acids including malic, lactic, tartaric and acetic acid to monitor the manufacturing process
- key enzymes for the malting and brewing industry (e.g. β -amylase, α -amylase, limit-dextrinase, β -glucanase and xylanase)
- ethanol content including in those beverages to be labelled as alcohol-free products
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Dairy and Infant Formula

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We offer a range of solutions for the following analytes:

Lactose	Lactic Acid	Fructan/FOS
Polydextrose	D-Glucose	Urea/Ammonia

Our Focus

Supporting dairy and infant formula manufacturers with the most accurate products on the market to measure:

- lactose in dairy samples, including milk-based products that are to be marketed as 'low-lactose' or 'lactose-free' due to consumer dietary requirements
- dietary fiber components such as FOS and polydextrose, used in a wide range of food products
- lactic acid and other compounds formed during fermentation/maturation
- urea and other key nutritional markers for dairy herds



Megazyme

Commonly Used Methods In The Food & Beverage Industry

Analyte	Products Available	Official Methods (for an extensive list visit megazyme.com)
Dietary Fiber Whether measuring total dietary fiber or a specific dietary fiber component, we have you covered	Total Dietary Fiber (K-TDFR) Enzymes such as amyloglucosidase (E-AMGDF), α -amylase (E-BLAAM) & protease (E-BSPRT) are also available as standalone products	AOAC 985.29 AOAC 991.43 GB Standard 5009.88-2014
	Integrated Total Dietary Fiber (K-INTDF)	AOAC 2009.01 AOAC 2011.25
	Rapid Integrated Total Dietary Fiber (K-RINTDF)	AOAC 2017.16 Codex Alimentarius Type I
Starch Kits for the measurement of total starch, digestible and resistant starch, starch damage and starch components such as amylose & amylopectin	Total Starch (K-TSTA)	AOAC 996.11
	Resistant Starch (K-RSTAR)	Codex Alimentarius Type II AOAC 2002.02
	Damaged Starch (K-SDAM) Amylose/Amylopectin (K-AMYL)	
Fructan & FOS We provide the only reagents available worldwide specifically for the measurement of fructan	Fructan (K-FRUC)	AOAC 999.03 AOAC 2016.14 Codex Alimentarius Type III
	Enzymes such as Sucrase (E-SUCR) & Fructanase (E-FRMXLQ & E-FRMXPD) are also available as standalone products to match some Fructan & FOS official methods	GB Standard 5009.255-2016
β-Glucan We have developed assay kits for the measurement of β -glucans in all samples	β -Glucan Cereal (Mixed linkage) (K-BGLU)	AOAC 992.28 AOAC 995.16 Codex Alimentarius Type II
	Mushroom & Yeast β -glucan (K-YBGL) Yeast β -glucan - Enzymatic method (K-EBHLG)	
Lactose Our lactose kits support the dairy industry with the most sensitive & accurate products on the market	Lactose (K-LOLAC)	AOAC 2020.08
	Lactose/Galactose (K-LACGAR)	AOAC 2006.06
Sugars & Organic Acids Our wide range of products allow food & beverage manufacturers to accurately monitor key analytes from raw material to end product. Liquid-ready assay kits and automatable formats are available to suit all sample analysis throughput needs.	Fructose (K-FRUGL) Glucose (K-GLUC) Maltose (K-MASUG) Sucrose (K-SUFRG) Malic Acid (K-LMAL) Lactic Acid (K-DLATE) Acetic Acid (K-ACET)	Most of our assay kit products are based on methods that have been accepted by official analytical bodies overseeing the wine, brewing, juice & dairy manufacturing industries.



Contact your local sales representative for further details

Megazyme



Megazyme

Diagnostic Products for Nutritional Analysis & Quality Management

Official Methods

Rapid Results

Expert Technical Support

Megazyme products provide diagnostic solutions for Quality Management & Nutritional Analysis, setting new standards in accuracy and reliability. We support commercial laboratories globally with innovative, sensitive and reliable assay kits and reagents to meet customer's analytical needs.

What are you testing for in your sample?

Whether testing for fiber content in food or lactose levels in milk, we have a diagnostic solution for you. Our product offerings cover a wide range of industries including:

Food

Dairy

Beverage

Animal
Feed

Our customer focused solutions address the needs of:

- consumer demand for evidence based nutritional information
- manufacturer regulatory compliance for accurate food labelling
- novel methods to support emerging areas in laboratory analysis
- accurate, robust & automatable enzyme-based tests matching all types of sample throughput without a large initial capital expenditure

Validated Methods

Internationally renowned methods, many of which were originally developed by our own scientists. Validations from the AOAC, CODEX and other governing bodies, guarantee results your customer can rely on.



Megazyme

Key Methods Covered by Analyte

Analyte	Products Available	Official Methods (for an extensive list visit megazyme.com)
Dietary Fiber Whether measuring total dietary fiber or a specific dietary fiber component, we have you covered	Total Dietary Fiber (K-TDFR) Enzymes such as amyloglucosidase (E-AMGDF), α -amylase (E-BLAAM) & protease (E-BSPRT) are also available as standalone products	AOAC 985.29 AOAC 991.43 GB Standard 5009.88-2014
	Integrated Total Dietary Fiber (K-INTDF)	AOAC 2009.01 AOAC 2011.25
	Rapid Integrated Total Dietary Fiber (K-RINTDF)	AOAC 2017.16 Codex Alimentarius Type I
Starch Kits for the measurement of total starch, digestible and resistant starch, starch damage and starch components such as amylose & amylopectin	Total Starch (K-TSTA)	AOAC 996.11
	Resistant Starch (K-RSTAR)	Codex Alimentarius Type II AOAC 2002.02
	Damaged Starch (K-SDAM) Amylose/Amylopectin (K-AMYL)	
Fructan & FOS We provide the only reagents available worldwide specifically for the measurement of fructan	Fructan (K-FRUC)	AOAC 999.03 AOAC 2016.14 Codex Alimentarius Type III
	Enzymes such as Sucrase (E-SUCR) & Fructanase (E-FRMXLQ & E-FRMXPD) are also available as standalone products to match some Fructan & FOS official methods	GB Standard 5009.255-2016
β-Glucan We have developed assay kits for the measurement of β -glucans in all samples	β -Glucan Cereal (Mixed linkage) (K-BGLU)	AOAC 995.16 AOAC 992.28 Codex Alimentarius Type II
	Mushroom & Yeast β -glucan (K-YBGL) Yeast β -glucan - Enzymatic method (K-EBHLG)	
Lactose Our lactose kits support the dairy industry with the most sensitive & accurate products on the market	Lactose (K-LOLAC)	AOAC 2020.08
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Sugars & Organic Acids Our wide range of products allow food & beverage manufacturers to accurately monitor key analytes from raw material to end-product. Liquid-ready assay kits and automatable formats are available to suit all sample analysis throughput needs.	Fructose (K-FRUGL) Glucose (K-GLUC) Maltose (K-MASUG) Sucrose (K-SUFRG) Malic Acid (K-LMAL) Lactic Acid (K-DLATE) Acetic Acid (K-ACET)	Most of our assay kits products are based on methods that have been accepted by official analytical bodies overseeing the wine, brewing, juice & dairy manufacturing industries.

Contact your local sales representative for further details

Our Popular Sugar Assay Kits

GLUHK	D-Glucose HK
K-FRUGL	D-Fructose/D-Glucose
K-SUCGL	Sucrose/D-Glucose
K-MASUG	Maltose/Sucrose/ D-Glucose
K-LOLAC	Lactose
K-LACGAR	Lactose/Galactose

Our Popular Acid Assay Kits

K-ACET	Acetic Acid
K-LATE	Lactic Acid (L-Lactate)
K-LMAL	L-Malic Acid
K-CITR	Citric Acid
K-TART	Tartaric Acid
K-GATE	D- Gluconic Acid
K-ASCO	Ascorbic Acid Assay Kit
K-GLUT	Glutamic Acid

Other Analytes

URAMR	Urea
AMIAR	Ammonia
K-ETOH	Ethanol
K-ACHYD	Acetaldehyde
K-GCROL	Glycerol

Enzymatic Assay Kits

For the measurement of key analytes in food and beverages

With over 30 years of experience in developing innovative analytical methods, our Megazyme assay kits are designed for the accurate and reliable measurement of sugars, acids, and other key analytes linked to food quality. Our kits offer sensitive and robust analytical solutions for a wide range of industries from commercial laboratories to food, dairy, wine and brewery.

Our assays are suitable for manual, microplate, and auto-analyser assay formats. Each of our kits contains standard controls, and ultra-pure enzymes and is formulated for faster analysis times and longer shelf-life.

Your Trusted Testing Partner

With our added value service and support from experienced scientists, we can be your trusted partner for all your analytical needs. Our Megazyme range is manufactured in-house at our site in Ireland, and we are pleased to say that we can support you with:

- Trusted methods compatible with the officially validated standards including AOAC, ISO, EBC, and more
- Readily available stock with a secure supply chain of all our products
- Ultra-pure enzymes
- Excellent technical support, per our customer feedback
- Additional support tools such as our user-friendly MegaCalc sheets to facilitate calculations

A Format To Suit Your Needs

Alongside our traditional assay formats, we also offer a range of liquid-ready kits to meet the requirements of automated testing platforms. Alleviating the need for sample preparations, the assays are supplied fully ready to use with open system auto-analysers.

You can view our full range of enzymatic assay kits [here](#)
For more information, contact us today.

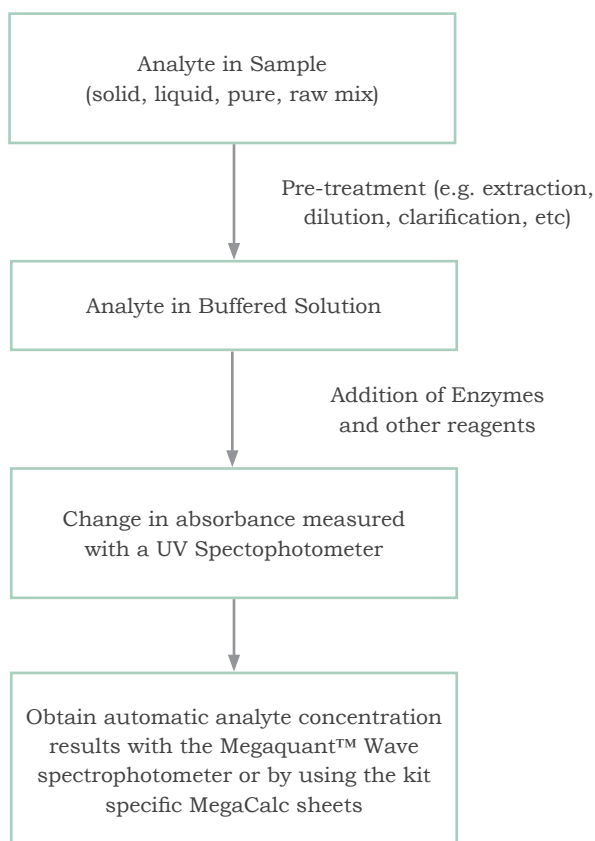
ENZYMATIC ASSAY KITS

For the measurement of key analytes in food and beverages



Example Workflow

Please refer to each product's technical specification sheet before completing the workflow



Please refer to the relevant validation materials for full details on the validated sugars and acids protocol.