

Industries we Serve

# Diagnostic Products for Quality Management Nutritional Analysis & Research







### 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:**



### **Our Product Types:**

Assay Kits Enzymes Carbohydrates 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



# Processed Food X W ...



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





# 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





# Beverage 49 60 80



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 endproducts. 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.  $\beta$ -amylase,  $\alpha$ -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





# 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

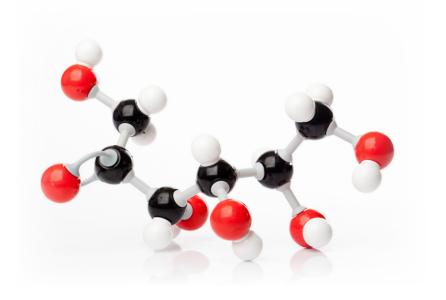
Colourimetric enzyme substrates

#### **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





# 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	endo-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





# 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:

endo-Xylanase	α-Amylase & β-Amylase	endo-Cellulases
Protease	Amyloglucosidase	β-Glucanase
Pullulanase & Limit dextrinase	endo-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

