

Functional Carbohydrates

Prebiotics | Enzymes | Nutraceuticals



The leading expert in the development of carbohydrate-active, engineered enzymes



Manufacturing of functional carbohydrates for food, nutrition and nutraceutical applications



CarbExplore Research works with the major food industries in Europe and the US

CarbExplore
• RESEARCH •



Did you know?

CarbExplore discovered 50+ unique enzymes for the development of functional carbohydrates. We assist in creating carbohydrates for food, feed, and pharma. Contact us for more information!

- ✓ Enzyme development
- ✓ Carbohydrate development
- ✓ Structural analysis and digestibility
- ✓ Monosaccharide & Linkage analysis



Contact us

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CarbExplore Research

Carbohydrate Digestibility

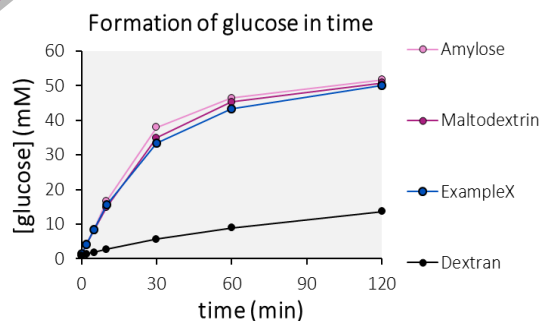




The #1 choice for digestion profiling of novel carbohydrates

Our *in vitro* screens correlate with known glycemic indices

Verify if your carbohydrate has prebiotic potential



Digestion of ExampleX

ExampleX (imaginary name, real product) is a commercially available and uniquely engineered homopolysaccharide with a precisely manipulated molecular mass. It is a blend of complex corn, potato and rice starches. According to the manufacturer, "This molecular mass is what enables ExampleX to absorb through the digestive tract at a substantially faster rate than most other dietary or supplemental carbohydrates on the market. Even at this hyper-fast rate of absorption, ExampleX is completely sugar free yet still provides the sustained energy of complex carbohydrates."

CarbExplore Research benchmarked ExampleX against commercial products of maltodextrin and amylose. As can be seen in the figure, ExampleX – being a complex carbohydrate – indeed breaks down fast: comparable to simple polysaccharides.

Tailor your carbohydrate products

Carbohydrates are increasingly important food ingredients, serving many purposes such as texturizing and energy release. Whether you are developing an easily metabolized carbohydrate or a soluble dietary fibre, the digestibility is a key feature.

Our scientifically established *in-vitro* screen mimics the human digestive system of the small intestinal tract, providing excellent insight in the fate of your carbohydrate after consumption.

Requiring a minimal amount of your product, or product blend, we reliably benchmark the rate of glucose release against competitor products. Our clients use the results for regulatory, patenting, or marketing purposes.

Moreover, CarbExplore offers unique enzyme solutions that enable designing carbohydrate functionality such as sugar release, solubility, digestibility and prebiotic activity.

Workflow

You deliver:

- ✓ 25 mg of carbohydrates (Dried, desalted, free of detergent)

We perform:

- ✓ *In vitro* screen for glucose release
- ✓ Quantitative analysis of product formation through HPAEC-PAD

You obtain:

- ✓ Report

