

# What to Know About Beta Glucans When Creating a Product with Immune Health Benefits

**Immune support is the 2nd most desired health benefit consumers want from products.**<sup>1</sup> There is an increased awareness of the immune health benefits of beta glucans, but not all beta glucans support immune health. And not all beta glucans are suitable for creating functional foods, beverages and supplements that offer the clinically proven health benefits consumers value most. When sourcing beta glucans for immune health product formulation, below are the key things to understand:

## What is a beta glucan?

Beta glucans are fibers found in the cell walls of foods such as cereal grains, mushrooms and yeast.

## Source and chemical structure determine the health benefits of beta glucans.

Each beta glucan source has a different structure (molecular backbone and level of branching), which effects its biological activity. Not all sources have been linked to immune health benefits.

Source	Molecular Backbone	Type of Branching	Structure	Biological Activity/Benefit
Cereal (i.e. oats)	linear β-1,3-glucan	linear β-1,4-glucan		Specific strains of oats have been shown to help lower cholesterol
Mushroom	linear β-1,3-glucan	short β-1,6 branch		Due to inconsistent structure, identifying the source of biological activity is difficult
Yeast (Saccharomyces cerevisiae)	linear β-1,3-glucan	long β-1,6 branched		Immune health (specific to strain)

## Manufacturing processes can impact a beta glucan's structure.

The method(s) used to extract and manufacture beta glucans can also impact their structure and are a key determinant in the impact they will have on the immune system.

## Strain is important and clinical research demonstrates each strain's efficacy.

Clinical research that supports a beta glucan's biological activity must be specific to the strain of yeast used to source the beta glucan. This is the only way to ensure efficacy.

## When evaluating a beta glucan for its immune health benefits and functionality, it's important to consider:

- What is the source and strain of yeast used?
- What is the manufacturing process?
- What are the quality assurance methods?
- Has the mechanism of action been explained, defined, or published in peer-reviewed research journals?
- What has the research found?
- Is the ingredient safe, and how has safety been verified?