



# About Ambrotose® Products



## Technical Information for You and Your Doctor

### What Are Mannatech's Ambrotose Products?

Mannatech's Ambrotose products are the world's first Glyconutritional dietary supplements—proprietary blends of plant saccharides that support cellular communication and immune, cognitive and gastrointestinal health.\* Over 50 patents have been issued, granted and validated in major global markets for the Ambrotose formulations. Two are available: Ambrotose® complex and the Advanced Ambrotose® product. Based on the same core technology, Advanced Ambrotose delivers an improved blend of saccharides at a lower cost per serving. These products can be purchased as capsules or bulk powders that can be added to water or other beverages. Ambrotose complex capsules and Advanced Ambrotose capsules and powder also contain a small amount of β-carotene. Product monosaccharide constituents include mannose, galactose, arabinose, glucose, galacturonic acid, rhamnose, xylose, fructose, fucose and glucosamine.

### What Science Guided Their Development?

The gel from aloe vera has been popular for centuries by many cultures. In the 1980s, Bill McAnalley, a PhD pharmacologist, was fascinated by the potent health benefits of fresh aloe vera gel. His research led to the discovery of a key component of this gel, a high molecular weight mannose-based polysaccharide rich in acemannan. This discovery, that a plant constituent typically dismissed as “just fiber” could provide such health benefits, helped contribute to a paradigm shift in nutrition.<sup>1</sup>



Dr. McAnalley then developed a powdered form of this polysaccharide, Manapol® powder, that preserved the benefits of fresh gel. In 1996, Mannatech capitalized on Dr. McAnalley's insights into glyconutrient technologies from a number of plants and launched Ambrotose complex.

### What Benefits Can Ambrotose Products Provide?

Since 1997, over three million people around the world have safely experienced the benefits of Mannatech's glyconutritional supplements. Ten studies have been published in peer-reviewed journals about Ambrotose powders. Eight of these studies were human clinical trials, six of which were gold-standard double-blind, placebo-controlled trials. They indicate that Ambrotose powders support cellular communication,<sup>2</sup> can improve immune system health<sup>3,4</sup> improve cognitive function<sup>5,6,7,8,9</sup> and support gastrointestinal health and overall well-being.<sup>6†</sup>

### What Safety Information Is Available?

Ingredients in these products have a long history of safe use by humans. Established in 1997, Mannatech's Product Safety

Monitoring Program continues to document the safety of daily Ambrotose product consumption. In a clinical study, Ambrotose did not affect blood glucose levels.<sup>5</sup> To date, more than 22 million units of Ambrotose products have been sold. The acute oral LD<sub>50</sub> of both product powders is greater than 5,000 mg/kg body weight in female rats. This is equivalent to hundreds of times the recommended daily amount for adults.

	Advanced Ambrotose powder	Advanced Ambrotose capsules	Ambrotose complex powder	Ambrotose complex capsules
<b>Key Ingredients</b>				
Manapol	✓	✓	✓	✓
Arabinogalactan	✓	✓	✓	✓
<i>U. pinnatifida</i> fucoidans	✓	✓		
β-carotene	✓	✓		✓
<b>Quality</b>				
Patented	✓	✓	✓	✓
NSF-certified 	✓	✓	✓	✓
Naturally gluten-free	✓	✓	✓	✓
Vegan	✓	✓		
Low glycemic	✓	✓	✓	✓
Contains naturally sourced ingredients	✓	✓	✓	✓
Free from soy, dairy, preservatives, artificial flavors, artificial colors, MSG	✓	✓	✓	✓

### Reference List

- Ramberg JE, Nelson ED, Sinnott RA. Immunomodulatory dietary polysaccharides: a systematic review of the literature. *Nutr J* 2010; 9(54): 1-60.
- Alavi, A., Fraser O, Tarelli E, et al. An open-label dosing study to evaluate the safety and effects of a dietary plant-derived polysaccharide supplement on the N-glycosylation profile of serum in healthy subjects. *Eur J Clin Nutr* 2008; 65: 648-56.
- Udani, J.K. Immunomodulatory effects of ResistAid: A randomized, double-blind, placebo-controlled, multidose study. *J Am Coll Nutr* 2013; 32(5): 331-8.
- Udani, J.K., Singh, B.B., Barrett, M.L., et al. Proprietary arabinogalactan extract increases antibody response to the pneumonia vaccine: a randomized, double-blind, placebo-controlled, pilot study in healthy volunteers. *Nutr J* 2010; 9(32): 1-7.
- Best T, Howe P, Bryan J, et al. Acute effects of a dietary non-starch polysaccharide supplement on cognitive performance in healthy middle-aged adults. *Nutr Neurosci* 2015; 18(2): 76-86.
- Best T, Kemps E, Bryan J. Perceived changes in well-being following polysaccharide intake in middle-aged adults. *Applied Res Qual Life* 2012; 7(2): 163-82.
- Best T, Kemps E, Bryan J. Saccharide effects on cognition and well-being in middle-aged adults: A randomized controlled trial. *Dev Neuropsych* 2010; 35(1): 66-80.
- Stancil, A.N., Hicks, L.H. Glyconutrients and perception, cognition, and memory. *Perceptual Mot Skills* 2009; 10: 259-70.
- Wang, C., Szabo, J.S., Dykman, R.A. Effects of a carbohydrate supplement upon resting brain activity. *Integr Physiol Behav Sci* 2004; 39(2): 126-38.

**\* These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.**

† Studies were at least partially funded by Mannatech. In some cases, this means that Mannatech donated the product that was studied. In other cases, additional funding was provided.

 NSF-Certified according to the NSF/ANSI 173 Dietary Supplement Standard, the only American National Standard for dietary supplements. This certification ensures that this product contains only the ingredients indicated on the label and is free of impurities, and that Good Manufacturing Practices (GMPs) were used in the manufacturing facility.