Healthy Science™ *by Mannatech*

Manapol® Extract: Mannatech's Sweet Foundation

Mannatech Research and Development Team

In this season of giving gifts and thanks, let us take a minute to honor the sweet foundation of Mannatech's success: Manapol aloe vera gel extract. Manapol extract, Mannatech's very special polysaccharide, is a long-chain carbohydrate consisting mostly of the simple sugar mannose. It was licensed to Mannatech in 1994 when we first introduced the world's first glyconutritional product, Man•Aloe® supplement, and it is exclusive to Mannatech today. It was revolutionary then, and it's revolutionary now.

What Makes Manapol Extract Revolutionary?

Back in the 1980s, scientists were accustomed to attributing the benefits of foods and medicinal plants to their constituent vitamins, minerals, fats or proteins. Back then, Dr. Bill McAnalley (who later became Mannatech's first Chief Science Officer) and other scientists discovered that many of the amazing topical and oral benefits of aloe vera gel could be attributed to a polysaccharide (that Dr. McAnalley isolated in its stabilized [acetylated‡] form and named Acemannan). Researchers demonstrated that these mannose-rich long chains of sugars in aloe vera gel provided impressive immune system support.* Dr. McAnalley then developed the Manapol extract by modifying Acemannan so that it was suitable for human dietary intake.

Dr. McAnalley soon became interested in the role that mannose plays in human cellular communication, and went on to develop Mannatech's second and third generation glyconutritional dietary supplements, Ambrotose® complex and Advanced Ambrotose® products. Leading the way as a pioneer in glyconutritional technology, Mannatech remains committed to the science of life-changing wellness possibilities. To date, more than 50 patents related to the technology behind our Ambrotose products have been issued globally, and these products are available exclusively through Mannatech.

More on Manapol Powder

Manapol powder is extracted from fresh, washed and filtered aloe vera gel by a specialized extraction method that yields insoluble fibers and stabilized, high molecular weight (MW) soluble fibers rich in long-chain mannose sugars—β-(1-4)-acetylated polymannans. The MW of over 20% of Manapol is >800,000. It also contains the monosaccharide sugars arabinose, fucose, galactose, galacturonic acid, glucosamine, glucose, glucuronic acid, rhamnose and xylose (1),(2),(3). Ambrotose complex powder provides an excellent source of Manapol powder.

1. Luta G, McAnalley B. Aloe vera: chemical composition and methods used to determine its presence in commercial products. *GlycoScience & Nutrition* 2005;6:1–12.
2. Duncan, C., Ramberg, J., and Sinnott, R. Striking differences in Aloe vera gel carbohydrate composition, molecular weight and particle size distributions following processing will not be addressed by dietary supplement GMPs. 1-5. 2008. Poster Presentation at the Scripps Center for Integrative Medicine's 5th Annual Natural Supplements Conference, San Diego, California. January 17–20, 2008.
3. Luta G, Duncan C, Sinnott R. Chemical characterization of polysaccharide-rich ingredients from *Aloe vera, Larix laricina* and *Larix occidentalis*, and *Undaria pinnatifida*. Poster Presentation at the Scripps Center for Integrative Medicine's 6th Annual Natural Supplements Conference, San Diego, California. January 22–25, 2009.

‡ Acetylation of many organic molecules has been shown to enhance their biological effects

* 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.

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