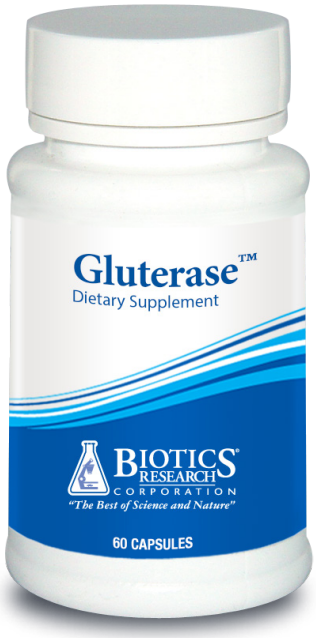
Gluterase™



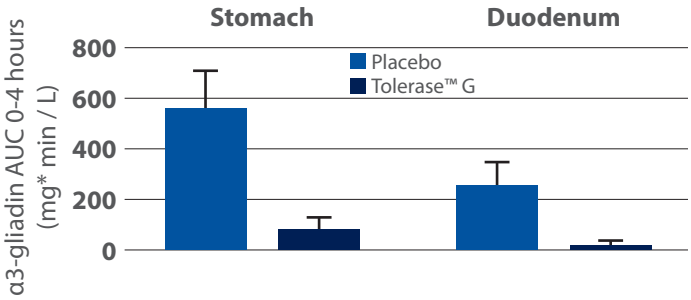
Gluterase™ was designed to provide digestive support for those with gluten intolerance or sensitivity.

Gluten represents approximately 50% to 80% of the protein found in wheat, barley and rye gains, and primarily due to its rich proline content, is very difficult to digest[1]. It can be found in many different foods as an additive, making it very difficult to avoid entirely, even when trying to follow a gluten free diet. It is for those patients that Biotics Research formulated **Gluterase™**.

Gluterase™ provides specific nutrients shown to help digest and inactivate gluten, and at the same time support the health and efficacy of the gastrointestinal (GI) tract.

Tolerase™ G, a specialized enzyme preparation providing prolyl endopeptidase, and has been shown to significantly degrade gluten (Glia-α3) in the stomach and duodenum of human volunteers[2]. Tolerase™ G is stable and active under gastric conditions and has demonstrated it is more effective than other commercially available enzymes currently promoted to digest gluten[2,3,4].

Tolerase™ G degrades gluten (Glia-α3) in stomach and duodenum of human volunteers

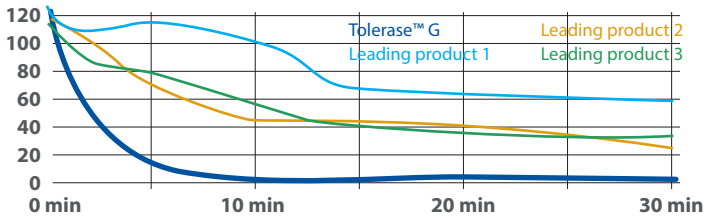


Tolerase™ G significantly degrades gluten epitope concentrations in the stomach and duodenum of human volunteers compared to placebo[4]

Gluten-digesting enzymes available on the market are not very effective

Methods

Commercial dietary supplements for gluten digestion were compared to *in vitro* gluten epitope digestion.



Currently available gluten-digesting enzyme supplements are not effective[4].

BIOTICS RESEARCH CORPORATION
Utilizing "The Best of Science and Nature" to Create Superior Nutritional Supplements

GLUTEN FREE GUARANTEE

(800) 840-1676
Biotics Research Canada
Box 283 • Keswick ON L4P 3E2
orders@bioticscan.com

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Gamma oryzanol (from rice) a mixture of sterols and ferulic acid esters. It has been documented to effectively support gastric healing[5].

Okra (Abelmoschus esculentus), provides pectin and mucilage, and possesses antioxidant activity. As a mucilaginous nutrient, it provides significant support to mucous membranes.

Marshmallow (Althaea officinalis) extract supports mucosa health. Its polysaccharides possess antitussive activity.

Vitamin U Complex (DL-methylmethionine sulfonium chloride) is a methionine derivative shown to protect intestinal membrane cells in humans, and has been documented to support gastric healing[6]. Effects include stimulating the formation of gastric mucous, providing antioxidant activity, and acting as a methyl donor.

Superoxide Dismutase and Catalase (from vegetable culture) are two very important antioxidant enzymes.

References

1. Hausch t, et al. Am J Physiol - Liver Physiol. 2002 Oct; 283(4): G996-G1003
2. Stepniak D, et al. Am J Physiol – Gastrointestinal and Liver Physiology 2006; 291: G621-9
3. Mitea C, et al. Gut 2008; 57: 25-32
4. Janssen G, et al. PLOS ONE doi:10.1371/journalpone.0128065 June 1, 2015
5. http://uofmhealth.org/health-library/hn-2850009 (U of Michigan Health System)
6. Shaw, AL. A Thesis Submitted to the Graduate Faculty of Auburn University May 10,2007

Gluterase™ is available in 60-count bottles (#8009).

Supplement Facts

Serving Size: 2 Tablets **Servings Per Container: 30**

	Amount Per Serving	% Daily Value
Tolerase™ G (prolyl endopeptidase)	270 mg	*
Gamma Oryzanol (from rice)	100 mg	*
Okra (Abelmoschus esculentus) (fruit)	100 mg	*
Marshmallow (Althaea officinalis) (root) (extract)	50 mg	*
Vitamin U Complex (DL-methylmethionine sulfonium chloride)	20 mg	*
Superoxide Dismutase (from vegetable culture †)	15 mcg	*
Catalase (from vegetable culture †)	15 mcg	*

*** Daily Value not established**

Other ingredients: Cellulose, modified cellulose gum, modified cellulose, magnesium stearate (vegetable source), food glaze and silica.

† Specially grown, biologically active vegetable culture containing naturally associated phytochemicals including polyphenolic compounds with SOD and catalase, dehydrated at low temperature to preserve associated enzyme factors.

This product is gluten and dairy free and helps to digest foods containing gluten.

RECOMMENDATION: Two (2) tablets with each meal as a dietary supplement or as otherwise directed by a healthcare professional.
For best efficacy, take Gluterase™ at the start of a meal which may contain gluten.

CAUTION: Gluterase™ is not suitable to replace a gluten-free diet. **Gluterase™** is not suitable to treat or prevent celiac disease.

KEEP OUT OF REACH OF CHILDREN
Store in a cool, dry area.
Sealed with an imprinted safety seal for your protection.

Product # 8009 Rev. 04/16

To place your order for **Gluterase™** or for additional information please contact us below.

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What every patient *and practitioner* should know

What is gluten?

Gluten is a general name for approximately 50% to 80% of the proteins found in wheat, rye, spelt and barley. It is the ingredient responsible for helping foods maintain their shape and for the elastic texture of dough. As a matter of fact, the word gluten is derived from its "glue-like" properties and is used in many different foods as an additive.

Gluten consists primarily of the proteins, glutenin and gliadin. Ordinarily, proteins are broken down into amino acids and digested easily. However, gliadin contains long proline peptides, which are difficult to digest efficiently. As a result, some individuals are sensitive to dietary gluten and may even experience immunological and opioid-like effects on the nervous system after eating foods containing gluten.

Why gluten free?

Many people avoid gluten in their diets. The term "gluten-related disorders" encompasses all conditions related to gluten intake; it includes autoimmune, allergic, and non-autoimmune and non-allergic diseases. More specifically, people's reasons for removing gluten may be due to either a medical condition, such as celiac disease or a wheat allergy, or because they have what is called non-celiac gluten sensitivity (NCGS).

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Ask your healthcare professional today if Gluterase® is right for you!

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Gluterase®

Digestive Support for Those with Gluten Intolerance or Sensitivity

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Why go gluten free?

Celiac disease is an autoimmune-like gluten-related disorder triggered by gluten. This condition affects between 0.5% and 1% of the general population and can be difficult to diagnose because it affects people differently. The more than 200 symptoms of celiac disease may occur in the digestive system or other parts of the body. Oftentimes, there are no symptoms at all.

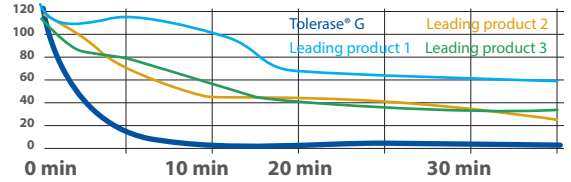
A wheat allergy occurs when your body produces antibodies to proteins found in wheat causing a unique immune system reaction. Some symptoms of a wheat allergy include swelling, itchy rash, nasal congestion, headaches, breathing difficulties, and digestive problems.

Non-celiac gluten sensitivity (NCGS) is a category used for people with neither celiac disease or a wheat allergy, but who still experience symptomatic relief when removing gluten from their diets. Removing gluten from the diet also means removing other components associated with wheat, such as glyphosate, an herbicide often applied to wheat crops. This makes it challenging to identify the exact culprit, but the self-reported prevalence of people with NCGS who choose to go gluten free fluctuates between 0.5-13% of the population.

Gluten-digesting enzymes available on the market are not very effective

Methods

Commercial dietary supplements for gluten digestion were compared to *in vitro* gluten epitope digestion.



Currently available gluten-digesting enzyme supplements are not effective.

Gluten Contamination

With gluten wreaking havoc on the health of many people, over 10% of our population avoids it, or at least tries to avoid it. One study, however, has shown that 66% of people trying to follow a gluten-free diet had been exposed to gluten and reported a symptomatic reaction. This may happen due to cross contamination or because food products containing 20 parts per million or less of gluten can be labeled gluten-free, according to the FDA. Cross-contamination is when a food product may be gluten free by nature but is exposed to other foods containing gluten. Because of the accumulation of small amounts of gluten that add up on a daily basis and cross-contamination, adhering to a diet entirely gluten free can pose a challenge and, for those with medical conditions, a serious health risk. Some studies show that even when following a gluten free diet, unintentional gluten intake can range from 200 mg per day up to 3000 mg per day.

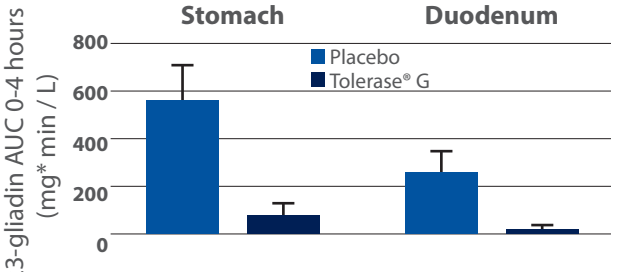
Gluten Digestive Support

Gluterase® is a formula for those gluten-sensitive patients who are already following a gluten-free diet, but want help breaking down residual gluten. It contains proline-specific digestive enzymes that significantly degrade gluten in case of unintentional consumption.

Designed to have optimal activity under the harsh conditions of the stomach, **Gluterase®** works to digest the proteins into amino acids that can be comfortably absorbed through the intestinal wall.

Gluterase® is ideal to take prior to those meals where you have less control over the food preparation. Having **Gluterase®** on hand can take the worry out of eating when going out for a meal at a restaurant or a friend's house.

Tolerase® G degrades gluten (Glia-α3) in stomach and duodenum of human volunteers



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