

DAOgest

Diamine oxidase enzyme

Use: **digestive health** Dose: **4.2mg/serving/day** Application: **dietary supplements**

DAOgest is an effective digestive health supplement providing **high-quality diamine oxidase (DAO) enzyme** to support with the management of histamine intolerance. Extracted from porcine kidney, DAOgest is a **100% naturally-derived ingredient** for use in food supplements.

Globally:



40% people have a gastrointestinal condition¹



Digestive health supplements market **CAGR 8.6%** 2019-2025³



Food intolerances affect **15-20%** of the population²



Increasing number of digestive enzyme supplements

Histamine & DAO

Histamine is a **naturally occurring molecule** that is produced in the body and present in a wide range of foods and drinks. This ingested **histamine is broken down by DAO enzyme** – a histaminase – in the digestive system. Histamine intolerance is associated with impaired dietary histamine metabolism. This is due to low DAO enzyme activity and/or DAO deficiency, which can lead to an imbalance between the intake of histamine and the body's ability to degrade it – creating an **excess of histamine that can trigger allergy-like effects**.

Histamine intolerance

Prevalence: 1-3% global population⁴

Cause: low DAO enzyme activity

Who: women (80% cases)⁵

Activated by: histamine-rich foods and histamine liberators

The solution: DAOgest

A low histamine diet, plus DAO enzyme supplementation (15 minutes before meals), helps to manage the condition.

DAO supplementation:

- 1 Contributes to **break down of histamine** from foods and beverages
- 2 Helps to **decrease histamine levels**

- 3 **Manages the negative effects** associated with histamine intolerance

1. Histamine degrading activity is at the intestinal level

DAOgest (4.2 mg) exerts enzymatic activity at histamine concentrations of 15 and 30 mg/L. The supplement is not absorbed in the intestine – verifying that its activity occurs at the intestinal level only.

Gálvez-Martin, P. et al. ESPEN Congress, Lyon, 2023.

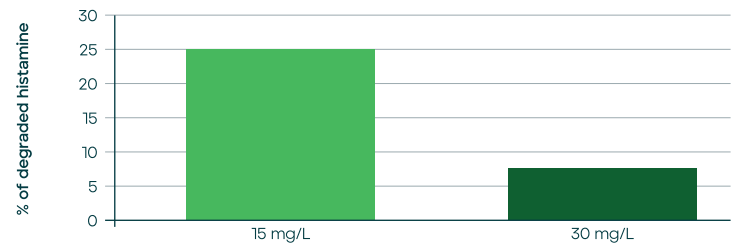


Fig 1. Percentage of histamine degraded by DAOgest (at histamine substrate concentrations of 15 and 30 mg/L).

2. Vitamin C boosts DAO enzymatic activity

The addition of vitamin C to DAOgest increases the histamine degrading capacity of DAO and subsequent histamine breakdown.

Gálvez-Martin, P. et al. Journal of the Academy of Nutrition and Dietetics, 2022;122:A43.

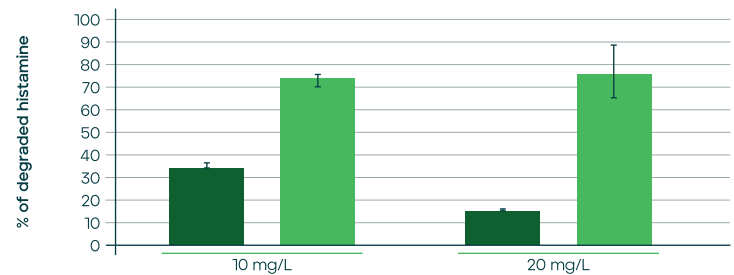


Fig 2. Histamine degradation after applying DAO extract and DAO extract plus vitamin C with histamine at 10 and 20 mg/L.

3. Exhibits high histamine degrading activity

The enzymatic activity and histamine degrading capacity of a finished dosage formulation containing DAOgest and vitamin C is higher than other commercially available DAO supplements.

Gálvez-Martin, P. et al. Nutr Hosp, 2023;40:95–96.

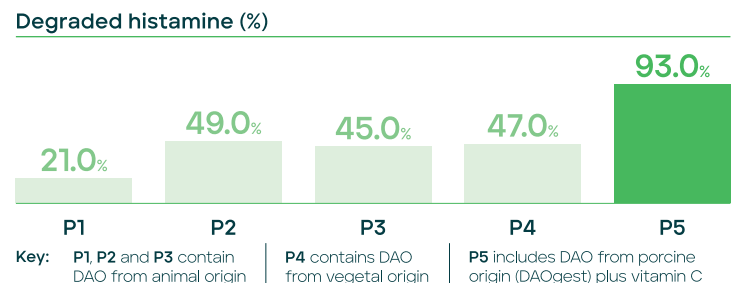


Fig 3. Percentage of histamine degraded by five DAO-based products. Enzymatic activity evaluated using histamine (10 mg/L) as a substrate.

4. Reduces histamine intolerance effects

Supplementation of DAOgest at 4.2 mg/serving/day in individuals with histamine intolerance helps to reduce the effects of histamine intolerance from the first week of intake.

O' Connor, ME et al. ESPEN Congress, Lyon, 2023.

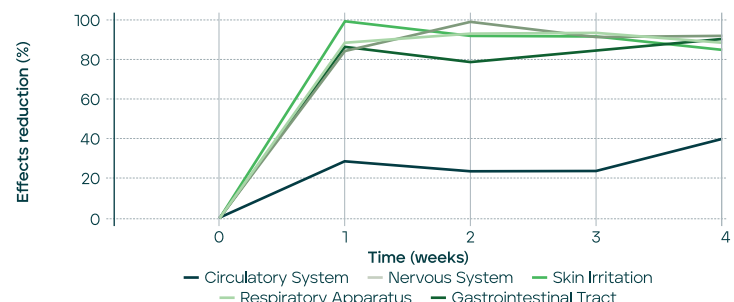


Fig 4. Percentage of reduction of allergy-like effects during the four-week period.

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References 1) Sperber et al. Gastroenterology, 2021;160:99–114. 2) Zopf et al. Dtsch Arztebl Int, 2009;106:359–369. 3) Grand View Research. [report], accessed August 2021. 4) Comas-Baste et al. Biomolecules, 2020;10:1181. 5) Jarisch Current Dermatology, 2014;40: 275–282.

About Bioiberica

Bioiberica is a global life science company with more than 45 years' experience in the research, production and commercialisation of molecules of high biological and therapeutic value for the pharmaceutical, nutraceutical and food industries. With a portfolio of scientifically-backed ingredients inspired by the latest consumer trends, Bioiberica Human Health serves the mobility, digestive health and skin & beauty markets.

To innovate in the digestive health market using Bioiberica's DAOgest, contact us today.

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