

PlantPro™ 475MDP

PP475MDP

Features/Benefits

- Efficient protein breakdown - achieves extensive hydrolysis in plant proteins
- High exopeptidase activity for producing smooth, non-bitter hydrolysates with improved solubility
- Enhances functionality of plant proteins to improve their versatility and success in different ingredient applications

PlantPro™ 475MDP is a specialised enzyme designed for the extensive hydrolysis of plant proteins, particularly vital wheat gluten, to create a soluble protein hydrolysate. This enzyme is a solution to common issues such as poor solubility, off-flavours and undesirable textures often found in plant proteins. With high exopeptidase activity, this enzyme efficiently breaks down plant proteins such as wheat gluten and pea protein to produce protein hydrolysates with a high degree of hydrolysis. The extensive hydrolysis achieved using PlantPro™ 475MDP generates a smooth, non-bitter hydrolysate with high levels of free amino acids, improving the hydrolysates' overall sensorial profile and functionality, making it ideal for use in a range of applications, such as protein beverages and meat and dairy alternative products.

Specification

Activity	203 U/g Leucine aminopeptidase
Biological Source	Microbial and plant
Appearance	Off white to brown powder
Application pH Range	5.0 - 8.0
Application Temperature Range	45 - 60°C
Deactivation Conditions	99°C for 20 mins

Application & Dose

The optimum dosage of PlantPro™ 475MDP will depend on the protein substrate and level of modification required. A temperature of 50 – 60°C and pH of 5.0 – 8.0 are recommended for optimal hydrolysis. As an initial dosing guide, PlantPro™ 475MDP can be used at a dose of 0.5 – 4.0% w/w protein content. A typical incubation time may be in the range of 4 – 24 hours. It is recommended that optimisation trials are then performed in order to determine the exact conditions to achieve the desired effect. Please contact Biocatalysts Ltd for further technical support. We offer a comprehensive technical application service partnering with you to test our enzymes with your substrates to help you achieve optimal performance, efficiency, and quality in your products.

Health & Safety

Always read the Material Safety Datasheet (MSDS) before use and retain. If you are in any doubt about recommended product handling and safety, please contact Biocatalysts before use. Generally, when using enzymes avoid contact with the skin and eyes and do not breathe dusts or aerosols containing them.

Storage

Powders: Activity will remain within specification for at least 12 months from the date of manufacture when stored below 20°C.

Allergens

Refer to allergen statement.

Food Status

Prepared from enzymes of GRAS status and manufactured to FCC/JECFA/WHO/FAO recommendations for enzymes used in food processing.

GM Status

This product is not derived from a genetically modified organism. This product has been manufactured using fermentation processes of microbial organisms that have not been altered using modern biotechnology. This product does therefore not require labelling as GMO on food labels.

Quality

1. Food Safety Policy - The Company operates a Hazard Analysis at Critical Control Points (HACCP) system. This ensures that ingredients and the production environment are regularly monitored for contamination and that the processes are designed to produce safe products every time.
2. Good Manufacturing Practice (GMP) - The Company's integrated management system encompasses Total Quality, Health and Safety, Food Safety and GMP.
3. Biocatalysts Ltd is certified to ISO9001, ISO14001, ISO18001 and FSSC 22000

Availability

Powders: standard 25kg net poly-lined, 100% recyclable cardboard box.