

# PlantPro™ 555MDP

## PP555MDP

### Features/Benefits

- Cost-effective plant-derived enzyme for efficient hydrolysis of complex plant protein structures
- Achieve high degree of hydrolysis for improving the bioavailability of plant derived proteins
- Meets clean label demands - plant-derived enzyme suitable for vegan labelled food ingredients

**PlantPro™ 555MDP** is a high-quality, cost-effective powder enzyme preparation designed specifically for the hydrolysis of plant proteins in the production of plant-based food ingredients. Derived from papain, PlantPro™ 555MDP offers broad substrate specificity, efficiently breaking down complex plant proteins into smaller peptides to enhance their solubility, digestibility and overall functionality. PlantPro™ 555MDP is a versatile and economical enzyme solution for manufacturers looking to optimise plant protein processing, delivering improved functionality, taste and nutrition in plant-based food ingredients.

### Specification

Activity	100 U/g Papain
Biological Source	<i>Carica papaya</i>
Appearance	Off-white to brown powder
Application pH Range	5.0 - 8.0
Application Temperature Range	45 - 65°C
Deactivation Conditions	90°C for 10 minutes

### Application & Dose

The optimum dosage of PlantPro™ 555MDP will depend on the protein substrate and level of modification required. A temperature of 45 – 60°C and pH of 5.0 – 8.0 are recommended for optimal hydrolysis. As an initial dosing guide, PlantPro™ 555MDP can be used at a dose of 2 - 4% w/w protein content for high degree of hydrolysis, 0.75 - 2% w/w protein content for moderate degree of hydrolysis and 0.2 - 0.75% w/w protein content for a low degree of hydrolysis. 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. MSDSs are available in other languages. Please contact Customer Services.

### Storage

Powders: Activity will remain within specification for at least 12 months from the date of manufacture when stored at 0 - 20°C.

### Allergens

Refer to allergen statement.

### Food Status

Material complies with the JECFA/FAO/WHO and FCC recommended specifications for enzymes used in food processing.

### GM Status

This product has not been manufactured from a genetically modified microorganism, and no materials from genetically modified organisms have been used during the manufacturing process. This product does therefore not require labelling as GMO on food labels.

### Quality & Food Safety

Biocatalysts operates a preventative risk-based Food Safety System that ensures the environment and processes are designed to produce safe products every time. FSSC22000 and FSMA compliant.

Compliance - The Company's integrated management system encompasses Quality, Food Safety, Health and Safety and GMP.

Certificates are available on request from the Customer Services Department.

### Availability

Powders: standard 25kg net poly-lined, 100% recyclable cardboard box. Non-standard quantities are also available for some products, please enquire.