

# PlantPro™ 555L

PP555L

## 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™ 555L** is a protease derived from papaya, specifically designed for the efficient hydrolysis of plant proteins. This enzyme effectively breaks down plant proteins into smaller peptides significantly enhancing the proteins' functionality and processability in different applications. PlantPro™ 555L increases the solubility of plant proteins, facilitating easier incorporation into various food ingredient formulations, such as beverages and protein-rich products. By hydrolysing complex plant proteins into smaller peptides PlantPro™ 555L makes proteins more bioavailable and easier to digest, enhancing their nutritional value.

## Specification

Activity	100 U/g Papain
Biological Source	<i>Carica papaya</i>
Appearance	Light to dark brown liquid
Application pH Range	5.0 – 8.0
Application Temperature Range	40 - 65°C
Deactivation Conditions	95°C for 30 minutes

## Application & Dose

The optimum dosage of PlantPro™ 555L will depend on the protein substrate and level of modification required. A temperature of 50 – 60°C and pH of 5.0 – 7.5 are recommended for optimal hydrolysis. As an initial dosing guide, PlantPro™ 555L 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

Liquids: Activity will remain within specification for at least 6 months from the date of manufacture when stored at 0-8°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

Liquids: standard 25kg net plastic jerry cans.