



Lipomod™ 166P – L166P

- Fungal Esterase/Lipase
- EMC Production
- Protease Free
- Vegetarian And Kosher Products

Lipases and esterases hydrolyse triglycerides to liberate fatty acids. These fatty acids have strong flavour characteristics and are responsible for the flavours associated with cheese products. These enzymes are widespread throughout nature and have different degrees of activity to varying substrate triglycerides. For Enzyme Modified Cheese (EMC) they can be used to produce concentrated specific flavours.

L166P is a fungal lipase from *Mucor javanicus*. Commonly EMC is produced using lipases of animal origin hence this fungal product is well placed in the market as an animal free alternative to these enzymes. Products made using this lipase can be sold to vegetarian and kosher markets. L166P has preference for hydrolysis of mid-length (C18) fatty acyl glycerol linkages resulting in lower levels of blue flavour notes.

SPECIFICATION

Activity	5220 Esterase units / gram
Biological Source	<i>Mucor javanicus</i>
Form	Off white – light beige powder
pH Optimum	7.0
Temperature range	20 - 50°C

sheet no: 001/2

issue date: 25:06:09



APPLICATION & DOSAGE

Lipomod™ 166P has optimum activity at neutral pH, so no pH adjustments are required whether milk, milk fat or actual cheese is used. In production of EMC the shredded cheese is mixed with emulsifying agents to obtain a slurry of 40-55 % dry solids. This is pasteurised and cooled to 40-50°C. L166P should then be added at 0.05 to 0.15% w/w on solids and the mix incubated. The incubation time can vary from 8-36 hours and will depend on the enzyme dose, temperature and substrate. Trials will be required to determine the exact conditions. The enzyme is deactivated above 80°C. If protein notes are required Promod™ 215P can be used with L166P. See our technical bulletin on EMC for further information.

HEALTH AND SAFETY

Always read the Health and Safety sheet (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

Activity will remain above the minimum analysis specification for at least 12 months from the date of the Batch Certificate of Analysis, when stored below 25°C.

ALLERGENS

Data not yet available.

FOOD STATUS

Produced to FCC/JECFA/WHO/FAO recommendations for enzymes used in food processing.

GM STATUS

The production micro-organism used in this product is not a GMO. Within the proposed guidelines of the European Union regarding Genetically Modified products, the above product would be classed as GMO free.

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. ISO9001

Biocatalysts Ltd is certified to BS ISO9001: 2000. Regular Audits are carried out by the British Standards Institute (BSI) to ensure continuing compliance with the standard.

AVAILABILITY

Powders: standard 25kg nett poly-lined fibre kegs.

Non-standard quantities of 1kg and 5kg are also available for some products, please enquire.

