

Lipomod® 166MDP

L166MDP

Features/Benefits

- Fungal lipase
- EMC production - delicate flavours and cream notes
- Protease free
- Vegetarian status
- Kosher, Halal and vegetarian status

Lipomod® 166MDP is a fungal lipase from *Mucor javanicus*. Lipomod® 166MDP has preference for hydrolysis of medium and long chain fatty acids from triglycerides, resulting in the production of delicate flavours and cream notes. Since it is a non-animal product Lipomod® 166MDP is suitable for vegetarian and kosher products. If protein notes are required Promod® 215MDP can be used in combination with Lipomod® 166MDP.

Lipases and esterases hydrolyse triglycerides to liberate free fatty acids (FFA). These enzymes are widespread throughout nature, and they possess different activities and specificities towards triacylglycerol substrates (fat). Fatty acids have strong flavour characteristics and are responsible for the flavours associated with cheese products. For Enzyme Modified Cheese (EMC), lipases and esterases are used to produce specific concentrated flavours.

Specification

Activity	5,220 U/g Esterase (Tributylin substrate)
Biological Source	<i>Mucor sp.</i>
Form	Off-white to brown powder
Optimum pH Range	6.0 - 8.0
Optimum Temperature Range	20 - 50°C

Application & Dose

Lipomod® 166MDP has optimum activity at neutral pH, so no pH adjustments are required whether cheese, milk fat or milk is used. In EMC production, the shredded cheese is mixed with water and emulsifying agents to obtain an EMC slurry of 55-85% of cheese (40-55% of dry solids). The slurry is pasteurised and cooled to 40-50°C, prior to the addition of the enzymes. The recommended dosage for L166MDP is 0.05-0.15% w/w on cheese in the EMC slurry. The mixture can then be incubated for 8-36h, depending on the enzyme dose, incubation temperature and substrate. Trials will be required to determine the exact conditions in order to achieve the desired strength of flavour. The enzyme is deactivated above 80°C at the end of the incubation.

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 been manufactured using a fermentation process of a microbial organism that has not been altered using modern biotechnology. 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 10kg net poly-lined, 100% recyclable cardboard box. Non-standard quantities are also available for some products, please enquire.