

Flavorpro® 315L

F315L

Features/Benefits

- **To be used in combination with Promod® 417L for umami flavours in Enzyme Modified Cheese (EMC)**
- Cost-effective solution for enhanced savoury flavour profiles of dairy ingredients.
- Amplifies salty, cheesy, and lactic sour notes in EMC for unique flavour profiles.
- Produces EMCs with deep savoury flavours to support salt reduction in processed cheese applications.

Flavorpro® 315L has been developed specifically as part of a highly optimised enzymatic solution for savoury flavour generation in Enzyme Modified Cheese (EMC). Flavorpro® 315L is a highly effective liquid enzyme preparation to be used in combination with Promod® 417L for crafting EMCs with robust, umami and mature flavour notes. The unique activities of Flavorpro® 315L and Promod® 417L work together synergistically to maximise glutamic release from cheese for the efficient and cost-effective umami flavour generation. This precise enzyme combination can be used for amplifying the salty, cheesy, and lactic sour notes in EMC to enhance flavour complexity and produce rich mature protein flavours reminiscent of Parmesan, Cheddar, and Swiss EMC profiles.

Specification

Activity	Exopeptidase Activity >40 U/g
Biological Source	Microbial
Form	Light to dark brown liquid
Application pH Range	5.5 - 7.5
Application Temperature Range	45 - 55°C
Deactivation Conditions	>85°C for 15 minutes

Application & Dose

In EMC production, the shredded cheese is mixed with water and emulsifying agents to obtain an EMC slurry of 55-85% of cheese (no pH adjustment required). The slurry is pasteurised and cooled to 40-50°C, prior to the addition of the enzymes. The recommended dosage for generating umami flavours in EMC is Flavorpro® 315L at 0.6-0.8 % w/w of cheese and Promod® 417L at 0.3-0.5% w/w of cheese. The slurry can then be incubated for 8-36h. Trials will be required to determine the exact conditions to achieve the desired strength of protein notes. At the end of the process, both enzymes can be deactivated at >85°C for 15 mins. Biocatalysts Ltd.'s dairy lipases (Lipomod® products) can be used at the same time for concurrent production of strong fatty acid flavour notes. Please contact Biocatalysts Ltd for further technical support.

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

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

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

Availability

Liquids: standard 25kg net plastic jerry cans.

GM Status

This product has been manufactured using a fermentation process of a self-cloned organism, whereby genes naturally occurring in the organism have been over-expressed in order to ensure a higher level of the desired protein. No GMMs are present in the final product. 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