

Food-grade 537 Acid Protease

Product Number: FE40

Shipping and Storage

1. This product is an active biological agent. During transportation and storage, it should be kept away from light, at low temperatures, dry, and ventilated.
2. This product is originally packaged in a cool and dry environment, with a shelf life of 12 months.

Component

Component	FE40
Food-grade 537 Acidic Protease	25kg/barrel

Description

This product is refined through deep liquid fermentation of selected strains. It efficiently catalyzes protein hydrolysis under low pH conditions by acting on the amide bonds in protein molecules, breaking proteins down into peptides and amino acids. As a solid product, it exhibits excellent temperature resistance and maintains strong enzymatic activity even at lower pH levels.

Application

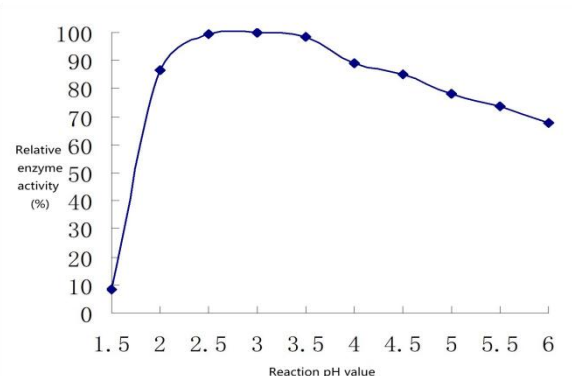
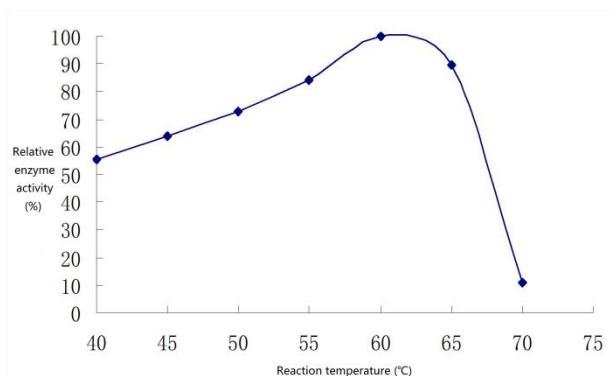
This product can be widely used in animal protein processing, grain production of alcohol, brewing industry and other fields.

1. Applied in the animal protein processing industry and aquatic product processing industry, it can improve the effective utilization rate of protein. Animal protein hydrolyzed by protease has the characteristics of strong meat texture, high alcohol thickness, and rich aroma.
2. Applied in the alcohol industry for grain production, it can promote yeast growth, improve fermentation speed, and increase the content of mature mash.
3. It can be used in the brewing of Baijiu, yellow rice wine, vinegar, soy sauce and other foods to promote the growth of bacteria, improve the fermentation ability of koji, improve the utilization rate of raw materials, and improve the flavor.

Mechanism of action

Acid proteases belong to the hydrolytic enzyme class and can cleave peptide bonds composed of various amino acids. They preferentially cleave peptide bonds between aromatic or hydrophobic amino acid residues at both ends, producing small peptides and amino acids.

Enzymatic properties



Operating conditions

For Research Use Only



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1. Effective temperature range: 30°C -70°C; Effective pH range: 2.0-6.0
2. Optimal temperature range: 50°C -60°C; Optimal pH range: 2.5-4.0

Appearance

Light yellow solid powder. Due to factors such as fermentation materials and cycles, there may be slight differences in color, but it does not affect the effectiveness of use.

Standard

This product complies with the relevant provisions of GB 1886.174 "National Food Safety Standard - Food Additives - Enzyme Preparations for Food Industry". The specific product quality standards are as follows:

Project		Indicator
Fineness (40 target pass rate),%		≥80
Dry weight loss, %		≤8.0
Lead (Pb)/(mg/kg)		≤5.0
Total arsenic (calculated as As)/(mg/kg)		≤3.0
Total colony count/(CFU/g)		≤50000
Coliform bacteria/(CFU/g)		≤30
Escherichia coli	(CFU/g)	< 10
	(MPN/g)	≤3.0
Salmonella (25g)		Not detected

Usage

The general recommended dosage is 0.01-1kg enzyme preparation per ton of raw materials. However, due to differences in application fields, raw material composition, and process parameters among factories, the actual addition method and amount of this product should be determined through experiments.

Note

Enzyme preparations are proteins, and inhaling dust or suspended particles may cause allergic reactions in people. If exposed to certain enzymes for a long time, it may irritate the skin, eyes, and mucous membranes; Splashing and strong agitation may cause inhalable dust. It is recommended to wear protective clothing, gloves, and eye or face protection.