Dextranase

D755057

Storage： 2-8℃. Store in the dark. Desiccated.

Product Description

Dextranase, called α-glucanase(CAS No.9025-70-1, EC3.2.1.11). It's a high-yielding strain from Chaetomium gracile screened by mutagenesis, which is through liquid deep fermentation extract from refining.

It's widely used in the field of sugar industry, oral care and etc.

Action Principle

Dextranase is a hydrolase for specificity splitting decomposition α-1, 6-glucoside linkages of dextran molecule, which outcome production are mainly isomaltose, isomalto-oligosaccharides and glucose.

Product Characteristic

1. Temperature range: 35℃ ~ 65℃ optimum temperature: 55℃ ~ 60℃ .
2. pH range: effective pH 3.0 ~ 8.0 optimum pH: 5.0 ~ 6.0 .

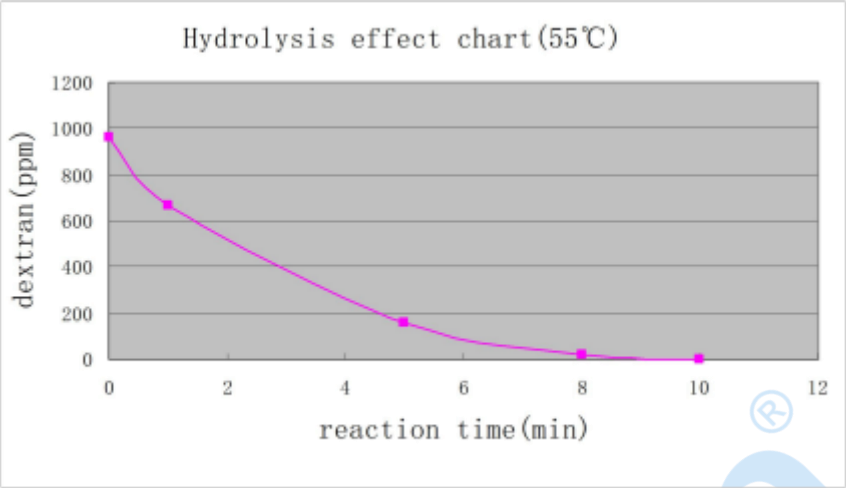
Product Feature

1. Product appearance: White to off-white powder .
2. Standard enzyme activity: ≥400U/mg enzyme powder .
3. Activity definition: One dextranase unit is defined as the quantity of enzyme that will liberate reducing sugar at a rate of 1μmol per minute under the condition of hydrolyze dextran (2% dextran T2000) at 55℃ and pH5.5 within 10min.
4. Product Standard: GB1886.174-2024[National Food Safety Standard-Food Additives-Enzyme Preparations For Food Industry].

Application Method

Sugar industry: In the sugar industry, leuconostoc mesenteroides streptococcus and other microorganisms are through secretion glucansucrases catalyze sucrose to glucose, glucose further polymerized to form dextran. The dextran is a high molecular weight polysaccharide polymer, and the type of glycosidic linkage is mainly α-1, 6 glycosidic bond. The existence of dextran will have serious impact on sugar production, obviously increase the viscosity of sugar, reduce the filterability of sugar solution, abnormal crystallization occurs when cane sugar is crystallized, increase the costs of sugar production, and affect the product quality. The use of dextranase can effectively improve the heating speed of cane juice, shorten the time of clarification and crystallization, it can eliminate the adverse impact of crystallization, thereby

improve the production efficiency and yield of sugar. Using Dextranase with enzyme activity of 30,000 U/g, in the cane juice which contains 1000ppm dextran concentration, add 3ppm liquid enzyme, the hydrolysis effect is as the chart:



Other Application

It also can be widely used to prepare small molecule dextran.