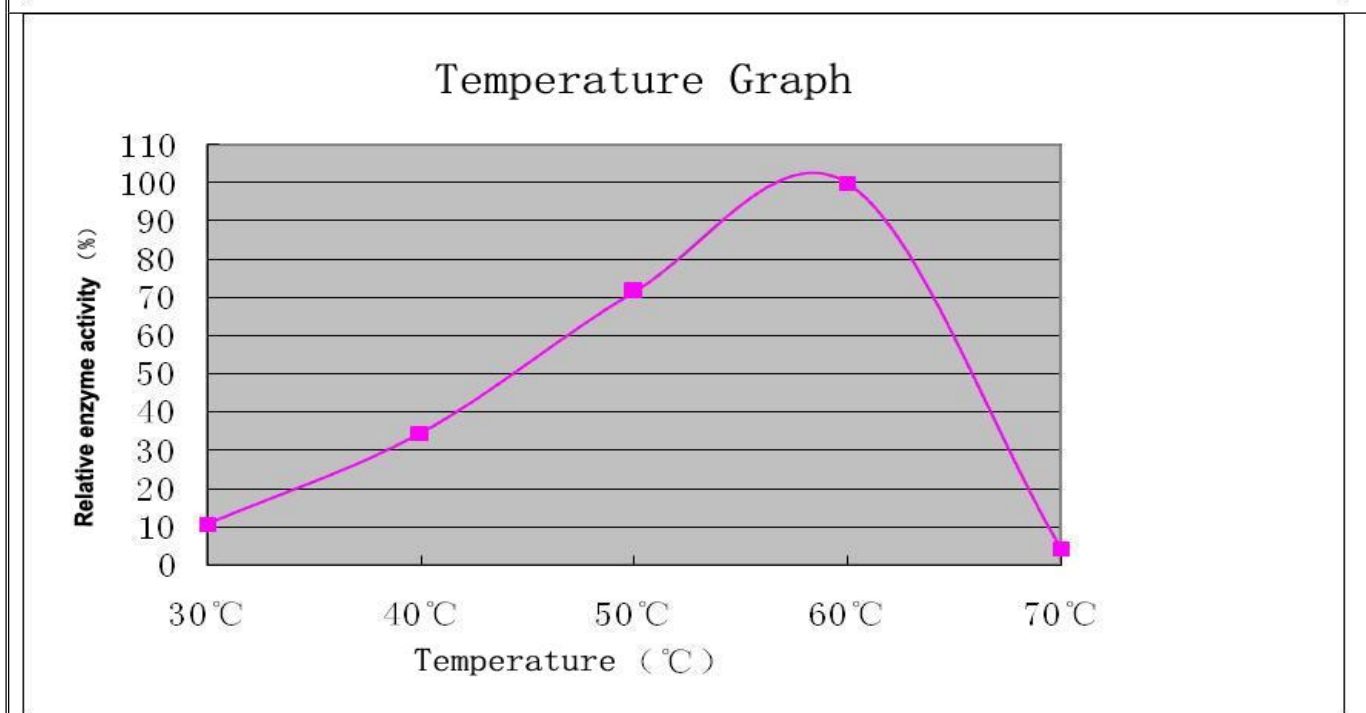
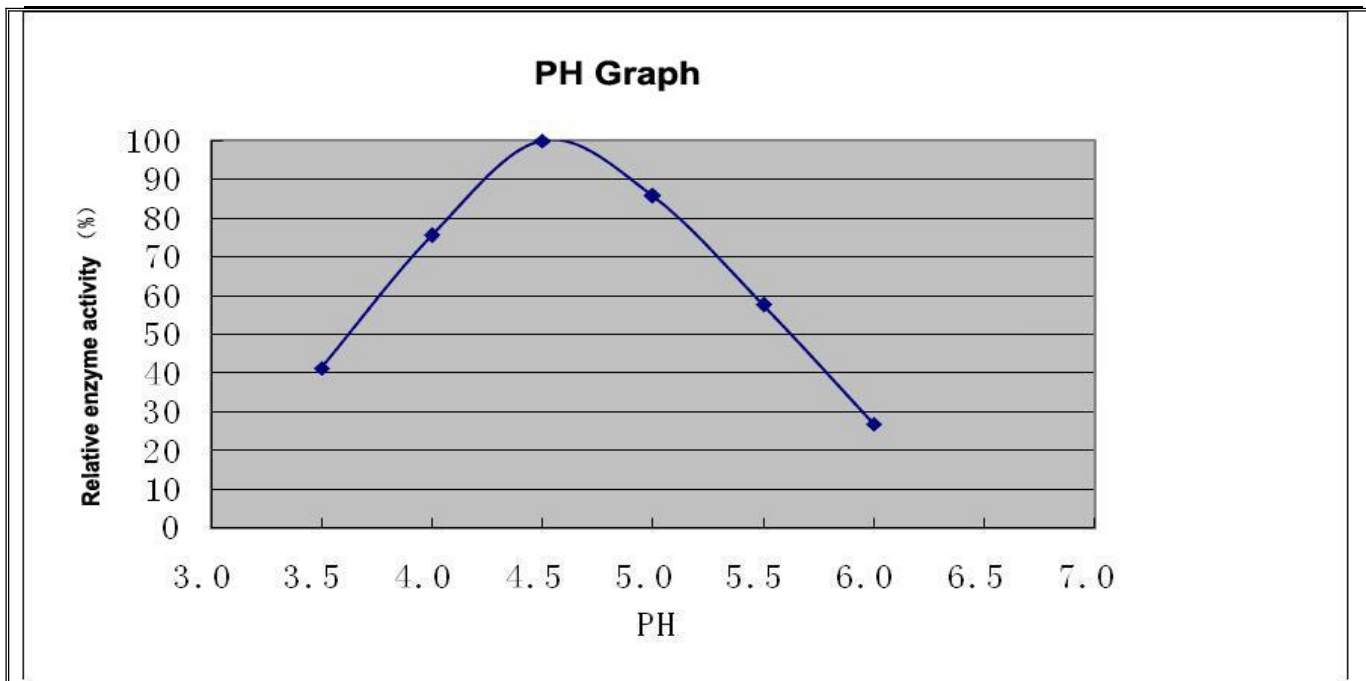


## BETA-GLUCOSIDASE

### PRODUCT INFORMATION

<b>INTRODUCTION</b>	
<p><math>\beta</math>-glucosidase (also named Cellobiase) is made from NON-GMO <i>Aspergillus niger</i> through cultivation and extraction technique. . It belongs to hydrolytic enzyme with the name of <math>\beta</math>-D-glucoside hydrolase or gentiobiase. It also contains strong glycoside activity.</p>	
<b>SPECIFICATIONS/ PHYSICAL AND CHEMICAL PROPERTIES</b>	
Appearance	: Liquid with low subsidence
Colour	: Brown
Odour	: Normal fermentation odour
pH	: Stable 3.5-5.5, optimum 4.0-5.0
Enzymatic Activity	: $\geq 4000$ u/mL
Activity Temperature	: Stable at 40-65°C , optimum at 50-60°C
Bulk Density	: $\leq 1.25$ g/mL
Calcium ion consistency	: Calcium ion can protect the product
<b>DEFINITION OF UNIT</b>	
<p>1 unit of <math>\beta</math>-glucosidase equals to the amount of enzyme which hydrolyzes salicin to get 1<math>\mu</math>mol reducing sugar (in glucose) at 50°C and pH4.6 in 1min.</p>	
<b>APPLICATION</b>	
<p><b>1 Production of gentiooligaccharide</b>            Enzymatic production of gentiooligaccharide mainly use specificity of cellobiase of condensation reaction, in high concentration of glucose as raw material, it can compose preferentially gentiooligaccharide of gentiobiose and gentianose etc.            In this way, we can get syrup which contain high and low gentian sugar, in which there are mostly glucose apart from gentiooligaccharide</p> <p><b>2 production of cellulase of efficient induction</b>            The gentiobiose,sophorose,sorbose,cellobiose etc which produced by glucose that transformed by glucosidase to glycosylation, is inducer of cellulase synthesis. It can increase 20% fermentation activity of cellulase, improve the brightness of liquid enzyme,improve the comprehensive quality of cellulase.</p> <p><b>3 Improve the flavor</b>            Owing to most of precursor is in a bound form of the glycoside and no aromatic odor, BGL can work together with other flavor enzyme to work on <math>\beta</math>-glucoside which can break down combined fragrant material and release free fragrant material, so it can increase the aroma effect and natural flavor of fruit juice etc.</p> <p><b>4 Extraction of polydatin</b>            Using beta glucosidase conversion technology, we can hydrolyze resveratrol with high content glucoside in the polydatin into free resveratrol, thus greatly improve the yield of resveratrol.</p> <p><b>5 Debittering effect</b>            It can break down amygdalin into benzaldehyde, ;hydrocyanic acid and two molecules of glucose, so The bitter can be reduced greatly.</p>	



**DOSAGE**

- In Gentiooligosaccharide manufacturing : glucose density 60 ~ 80%, PH 4.5 temperature 50 ~ 60°C , the dosage is 90U per gram glucose, add 1mmol/L K+, transformation period is 40 ~ 60h , the maximum accumulative total amount of Gentian oligosaccharides is 50g/L
- Using in fermentation of the Trichoderma reesei strain to manufacture Cellulase: At the induction stage, add the above-mentioned liquid glucose according to the technology requirement. The specific dosage need to be decided according to technology characters and experiment.

**PACKAGING**

25kgs/drum; 1,125kgs/drum

**STORAGE**

Should be stored in a cool place, avoiding high temperature and insolation.

## Enzymes.Bio

### SHELF LIFE

15°C, 12 months, enzymatic activity remains  $\geq 90\%$ . Increase dosage after shelf life.

### SAFETY

Enzyme preparations belong to protein, which may induce sensitization and cause allergic type reactions in sensitized individuals. Prolonged contact may cause minor irritation for skin, eyes or mucous membrane of nose, so any direct contiguity with human body should be avoided. If irritation or allergic response for skin or eyes develops, consult a doctor.