

MOA of Yeast β -Glucan

1. The treatment of the sample: Weigh 400mg glucan/mannan and put in the 200mL flask, add 6mL HCL(37%) and 100-120mL water, heat to 121°C for 60min, then cool. Adjust the hydrolysate to pH=6-7 using the NaOH solution then put into the 200mL volumetric flask, then filtrate it using the 0.45 μ m membrane.
2. The condition of chromatography: Mobile phase: water; speed: 0.6mL/min; temperature: 80°C;
3. Standard curve: prepare the 400, 800, 1200, 1600, 2000mg/L standard glucose/mannose solution, and determine it with chromatography respectively, and get the standard curve of the area and the concentration.
4. Determination of sample: determine the sample solution and get the area of the glucose, calculate the content of the glucan/mannan using the following formula:

$$X = \frac{A_1 \times 0.2 \times 100}{m_1 \times 1000} \times 0.9 \times F \dots \dots \dots (1)$$

X —— content of glucan or mannan, %;

A₁ —— the glucose mannose content of the sample solution calculated by the area and the standard curve, mg/L;

m₁ —— sample weight, g; 0.2 ——

volume of the sample solution, L; F ——

correction factor, 1.25;