exo-1,3-β-D-GLUCANASE / β-GLUCOSIDASE (Lot 181201)

E-EXBGOS **02/19**

EC 3.2.1.58 *exo*-1,3-β-D-Glucanase from *Trichoderma* sp. **(***Recombinant***)**
EC 3.2.1.21 β-Glucosidase from *Aspergillus niger*

This enzyme mixture is for use in determination of yeast and mushroom β-glucan as described in the Megazyme Yeast Beta-Glucan Assay Kit (**K-YBGL**).

PROPERTIES

1. ACTIVITY:

100 U/mL *exo*-1,3-β-glucanase
20 U/mL β-glucosidase

One Unit of *exo*-1,3-β-glucanase activity is the amount of enzyme required to release one µmole of glucose per minute from laminarin (10 mg/mL; *Laminaria digitata)* in sodium acetate buffer (100 mM), pH 4.0 and 40°C.

One Unit of β-glucosidase activity is defined as the amount of enzyme required to release one µmole of *p*-nitrophenyl per minute from *p*-nitrophenyl β-glucoside in sodium acetate buffer (100 mM), pH 4.0 at 40°C.

2. SPECIFICITY:

***exo*-1,3-β-glucanase**: Successive hydrolysis of β-D-glucose units from the non-reducing ends of (1,3)-β-D-glucans, releasing β-glucose.

β-glucosidase Hydrolysis of terminal, non-reducing β-D-glucosyl residues with release of β-D-glucose.

3. RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	U/mL
Laminarin	100
Laminaridextrin	~110
Scleroglucan	~60.0
p-Nitrophenyl β-glucoside	~20.0
CM-Cellulose 4M	~2.5
Starch	< 0.01
Ceralpha	< 0.01

Action on *p*NP-substrates and polysaccharides or oligosaccharides was determined at a final substrate concentration of 2.5 mM and 5 mg/mL, respectively, in sodium acetate buffer (100 mM), pH 4.0 at 40°C.

4. STORAGE CONDITIONS:

The enzyme is supplied as a suspension in 3.2 M ammonium sulphate and 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in sodium acetate buffer (100 mM), pH 4.0 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**