α-D-GLUCURONIDASE from *Geobacillus stearothermophilus* (Lot 130601a)

Recombinant - Thermostable

E-AGUBS **10/13**

Fusion protein of α-D-glucuronidase
(EC 3.2.1.139) alpha-D-glucosiduronate glucuronohydrolase
CAZy: GH Family 67

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 93,200)
- Broad diffuse band on isoelectric focusing (pI ~ 5.4)

2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES:

7.4 U/mg protein (on Aldouronic acid mixture; tri:tetra:penta) at pH 7.0 and 70°C
2.0 U/mg protein (on Aldouronic acid mixture; tri:tetra:penta) at pH 7.0 and 40°C

One Unit of α-D-glucuronidase activity is defined as the amount of enzyme required to release one µmole of α-D-glucuronic acid per minute from aldouronic acid (tri:tetra:penta) in MOPS buffer (100 mM) pH 7.0 and 70°C. The assay was peformed using the α-D-Glucuronidase Assay Kit from Megazyme (**Megazyme catalogue code: K-AGLUA**).

3. SPECIFICITY:

Hydrolysis of the α-1,2 glycosidic bond between D-glucuronic acid or its ether 4-*O*-methyl-D-glucuronic acid and D-xylose residues of xylo-oligosaccharides (aldo-uronic acids) from xylan.

4. PHYSICOCHEMICAL PROPERTIES:

pH Optima:	7.0
pH Stability:	6.0 - 9.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima:	70°C (10 min. reaction)
Temperature Stability:	up to 70°C (> 90% control activity after 15 min.)

5. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension in 0.02 % (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in MOPS buffer (100 mM), pH 7.0 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

6. EXPERIMENTAL DATA