α-D-GLUCURONIDASE from Geobacillus stearothermophilus (Lot 181101a)

Recombinant - Thermostable

E-AGUBS
Fusion protein of α-D-glucuronidase
(EC 3.2.1.139) alpha-D-glucosiduronate glucuronohydrolase
CAZy Family: GH67
CAS: 37259-81-7

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:
   40 U/mg protein (on Aldotriouronic acid) at pH 7.0 and 70°C
   10 U/mg protein (on Aldotriouronic acid) 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 aldotriouronic acid in MOPS buffer (100 mM) pH 7.0 and 40 or 70°C. The assay was performed 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 in 50% glycerol containing 0.02% (w/v) sodium azide and should be stored below -10°C. For assay, this enzyme should be diluted in MOPS buffer (100 mM), pH 7.0 containing 0.5 mg/mL BSA.
6. EXPERIMENTAL DATA

![pH Optima Graph](image1)

![pH Stability Graph](image2)

![Thermal Optima Graph](image3)

![Thermal Stability Graph](image4)