Prozomix Limited, Station Court, Haltwhistle,
Northumberland, NE49 9HN, UK.
Tel: +44 (0) 1434 400455
Fax: +44 (0) 1434 322822
info@prozomix.com
technical@prozomix.com
www.prozomix.com

[full product listing at www.prozomix.com/products/listing]

Recombinant Enzyme Product Specification Sheet

add this product to cart

view other α-glucuronidases

Cat. No.:	PRO-E0321
LOT:	2012-0321-1
Activity:	α-Glucuronidase
Synonyms:	α-Glucosiduronase; α-D-glucosiduronate glucuronohydrolase; alpha-glucuronidase; alpha-glucosiduronase; alpha-D-glucosiduronate glucuronohydrolase
Nomenclature:	CAZy [GH67, glycoside hydrolase family 67]
Source organism:	*Opitutus terrae* PB90-1
Enzyme Commission No.:	3.2.1.139
Activity:	31.04 U/mL (37°C; pH 6.5; aldouronic acid mixture – see assay below)
Specific activity:	21.12 U/mg
Purity:	> 95 % as judged by SDS-PAGE
Form and storage:	Supplied in 3.2 M ammonium sulphate, store at 4°C (shipped at room temperature)
pH optimum:	-
Temperature optimum:	-
[Protein]:	1.47 mg/mL
Sequence length:	730 amino acids (view sequence)
Accession No.:	ACB77588
Molecular weight:	82809.8 Da (theoretical)
	~ 80000 Da (observed by SDS-PAGE)
	- (observed by mass spectrometry)
Biological function:	Catalyses the release of 4-*O*-methyl-D-glucuronic acid from 4-*O*-methyl-D-glucuronoxylooligosaccharides but not from 4-*O*-methyl-D-glucuronoxylan (confirmed by assay)
Potential application(s):	Biomass conversion, carbohydrate research, fundamental research
Comments:	-
Usage:	Agitate vial sufficiently to fully homogenise enzyme precipitate before use. Dissolve the enzyme in 50 mM sodium phosphate buffer, pH 6.5, containing 1 mg/mL BSA, prior to assay (under these conditions

Prozomix Limited, Station Court, Haltwhistle,
Northumberland, NE49 9HN, UK.
Tel: +44 (0) 1434 400455
Fax: +44 (0) 1434 322822
info@prozomix.com
technical@prozomix.com
www.prozomix.com

a very slight haze may be visible. This will not interfere with the assay)

Assay:

One unit is defined as the amount of enzyme required to release 1 µmol of D-glucose equivalents per minute from an aldouronic acid mixture [prepared as follows: 50 mg of 4-*O*-methyl-D-glucurono-D-xylan was dissolved in 3.5 mL of 50 mM sodium phosphate buffer, pH 7.0, containing 1.8 mg/mL *C. mixtus* β-xylanase (cat. no. PRO-E0051). After 60 min incubation with stirring at 37°C, the reaction was boiled for 5 min to inactivate the xylanase. After centrifugation to remove the insoluble xylanase precipitate, the resultant aldouronic acid mixture was used to assay α-glucuronidase activity]. The final assay conditions comprised 2.75 mg/mL aldouronic acid mixture (prepared as described above) in 48.1 mM sodium phosphate buffer, pH 6.5, containing 1 mg/mL BSA, at 37°C, and using the DNSA assay method of Miller (1959; *Anal. Chem.* **31**, 426-428) to follow reducing sugar liberated at 575 nm. **NOTE:** because of a very high blank, this assay **MUST** be performed very carefully, and in triplicate, to ensure accurate results. Alternative assays using purified aldouronic acids, or mixtures thereof, or even borohydride reduced preparations of these substrates, should yield similar results

Primary sequence:

MRLPFVSIAAMAVALAAGSLLRADDGYRLWLRYDRVADESLRATYAAAFTEIALPAPTRPGFSLGSIEAARDELT
TGLKGLLGVDLSTVSQPTRDGALLLGTAVRSPELAGLVSEADLRAASEEGYVIRPVIFAGKRCVLVLGNRDVGVL
YGAFALLRHVQLHEPIAGLNLVSAPRIQRRLLNHWDNLNGFVERGYAGQSLWRWFELPDIVSPRYRDYARACASI
GVNGTVLTNVNANALVLTPAYLQKVAALANVFRPYGIRVYLTARFSAPVEIGGLKTADPLDPAVKQWWTDKVAEI
YRIIPGFGGFLVKANSEGQPGPQAYGRNHADGANMLADALVPYGGIVMWRAFVYDNNVPADRHTQGFSEFQPLDG
QFRSNAIVQVKNGAIDFMPREPFHPLFGAMPQTPLALELQITQEYLGQSMQLAFLGPLFEEVLDADTFRPNAGST
IAKIVDGSVDLHGISVIAGVANIGDDRNWTGHPLAQANWYAYGRLAWDHQLTSAQIANEWTRLTFGNDSAVVQPI
TSMLLESHEAVVNYSMPLGLHHIMAEGHHYGPGPWVDQAGRADWTSVYYHRADANGVGFDRTKSGSNALAQYAPE
IQNLWGNPATTPDNLLLWFHHLPWDYRMKSGRPLWDEIALHYQSGVDTVRTWQKAWATLNGKMDDERFTHVKQLL
ARQEHDARVWRDACLLYFQQFSKKPLPAGVEPPEHPLDFYKAQQIHFAPGHPGAH

Literature: -