

Enzyme Glucan 1,4- α -glucosidase

Systematic name 4- α -D-glucan glucohydrolase

IUBMB nomenclature Glucan 1,4- α -glucosidase

CAS number 9032-08-0

IUBMB number EC 3.2.1.3

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Synonyms

- glucoamylase; amyloglucosidase; γ -amylase; lysosomal α -glucosidase; acid maltase; exo-1,4- α -glucosidase; glucose amylase; γ -1,4-glucan glucohydrolase; acid maltase; 1,4- α -D-glucan glucohydrolase

Properties Hydrolysis of terminal (1 \rightarrow 4)-linked α -D-glucose residues successively from non-reducing ends of the chains with release of β -D-glucose. Most forms of the enzyme can rapidly hydrolyse 1,6- α -D-glucosidic bonds when the next bond in the sequence is 1,4, and some preparations of this enzyme hydrolyse 1,6- and 1,3- α -D-glucosidic bonds in other polysaccharides. This entry covers all such enzymes acting on polysaccharides more rapidly than on oligosaccharides. EC 3.2.1.20 α -glucosidase, from mammalian intestine, can catalyse similar reactions.