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Characterization of a Cellobiohydrolase (MoCel6A) Produced by Magnaporthe oryzae [edit]
PMID: 20709852
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Abstract [edit]
Three GH-6 family cellobiohydrolases are expected in the genome of Magnaporthe grisea based on the complete genome sequence. Here, we demonstrate the properties, kinetics, and substrate specificities of a Magnaporthe oryzae GH-6 family cellobiohydrolase (MoCel6A). In addition, the effect of cellobiose on MoCel6A activity was also investigated. MoCel6A contiguously fused to a histidine tag was overexpressed in M. oryzae and purified by affinity chromatography. MoCel6A showed higher hydrolytic activities on phosphoric acid-swollen cellulose (PSC), β-glucan, and cellooligosaccharide derivatives than on cellulose, of which the best
8< --- 8< --- 8< --- 8< ---
These results suggest that enhancement or inhibition of hydrolytic activities by cellobiose is dependent on the reaction mixture pH.
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cellobiohydrolase Enzyme 89 106
enzyme_alias: cellobiohydrolase
BRENDA_SystematicName: 4-beta-D-glucan cellobiohydrolase
BRENDA_ECNumber: 3.2.1.91
abbreviation_alias: -
google_search: http://www.google.com/search?q=cellobiohydrolase
BRENDA_RecommendedName: cellulose 1,4-beta-cellobiosidase
SwissProt_ID: O68438
BRENDA's page: http://www.brenda-enzymes.org/php/result_flat.php4?ecno=3.2.1.91
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