

Enzyme Cyclomaltodextrin glucanotransferase

Systematic name (1→4)-alpha-D-glucan:(1→4)-alpha-D-glucan 4-alpha-D-[(1→4)-alpha-D-glucano]-transferase (cyclizing)

IUBMB nomenclature Cyclomaltodextrin glucanotransferase

CAS number 9030-09-5

IUBMB number EC 2.4.1.19

EC number None

Synonyms

- *Bacillus macerans* amylase; cyclodextrin glucanotransferase; α -cyclodextrin glucanotransferase; α -cyclodextrin glycosyltransferase; β -cyclodextrin glucanotransferase; β -cyclodextrin glycosyltransferase; γ -cyclodextrin glycosyltransferase; cyclodextrin glycosyltransferase; cyclomaltodextrin glucotransferase; cyclomaltodextrin glycosyltransferase; konchizaimu; α -1,4-glucan 4-glycosyltransferase, cyclizing; BMA; CGTase; neutral-cyclodextrin glycosyltransferase; 1,4- α -D-glucan 4- α -D-(1,4- α -D-glucano)-transferase (cyclizing)

Properties Cyclizes part of a (1→4)- α -D-glucan chain by formation of a 1→4)- α -D-glucosidic bond. Cyclomaltodextrins (Schardinger dextrans) of various sizes (6,7,8, etc. glucose units) are formed reversibly from starch and similar substrates. Will also disproportionate linear maltodextrins without cyclizing (cf. EC 2.4.1.25, 4- α -glucanotransferase).