

PROCESS FOR PRODUCING A PARTICULATE COMPOSITION COMPRISING CRYSTALLINE ALPHA, ALPHA-TREHALOSE DI-HYDRATE

ABSTRACT

Provided is a production method whereby it is possible to produce a powder containing crystalline trehalose dihydrate with starch as a starting material with high powder-to-starch yields. More specifically, provided is a production method for a powder containing crystalline α , α -trehalose dihydrate and having at least 98.0% by weight of α , α -trehalose on an anhydrous basis, said method including: a step in which liquefied starch is subjected to the actions of a starch debranching enzyme, cyclomaltodextrin glucanotransferase, an α -glycosyl trehalose producing enzyme derived from a micro-organism belonging to the genus *arthrobacter*, and a trehalose releasing enzyme derived from a micro-organism belonging to the genus *arthrobacter*, and then to the action of glucoamylase, to obtain an α , α -trehalose-containing saccharide solution; a step in which α , α -trehalose dihydrate is crystallized from the saccharide solution; and a step in which the crystallized α , α -trehalose dihydrate is extracted by centrifugation, aged, and dried. The production method is characterized in that a natural or recombinant enzyme derived from a micro-organism belonging to the genus *paenibacillus* or a variant of such an enzyme is used as the cyclomaltodextrin glucanotransferase such that the content of α , α -trehalose in the saccharide solution is over 86.0% by weight on an anhydrous basis, without having to undergo a column chromatography fractionation step.

No suitable drawing to accompany the abstract