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HALOMONAS LEVAN AS FUNCTIONAL FOOD INGREDIENT FOR BAKING INDUSTRY

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Functional food ingredients and dietary fibers gained escalating popularity due to increasing number of conscious consumers. Functional food ingredients have many features like prebiotic, antipathogenic, anticancer and immunostimulative activities. These natural and functional ingredients have many features like shelf life extension, product deterioration and waste prevention and improve product quality. Fructans have the biggest market among other functional food ingredients. Levan is a β (2→6)-linked fructose polymer and it is the most common fructan in nature synthesized by both plant and bacteria. This water soluble, nontoxic, highly adhesive film former polymer has many application fields in cosmetics, food industry, medicine, pharmacy and chemistry. *Halomonas* Levan (HL) is produced by a halophilic *Halomonas smyrnensis* AAD6T, isolated from İzmir Çamaltı saltern area, and identified by our research group as the first levan producing extremophile. According to current research on food industry about functional food and dietary fiber activities, HL can be used as a dietary fiber and functional food ingredient with features like dough rheology and bread quality enhancer, antipathogenic sweetener, shelf life extender and edible food packaging. Current studies performed by our research group are mainly focused on the dietary fiber activity, dough rheology and bread quality enhancer activities of HL in baking industry.

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