

Characterization of gelatinase produced by Antarctic *Mrakia* sp.

Yuivar, Yassef

Alcaino, Jennifer

Cifuentes, Victor

Baeza, Marcelo

In the present study, 20 psychrotolerant yeast species isolated from the soils of King George Island in the sub-Antarctic region were evaluated for the production of extracellular gelatinase, an enzyme with high potential for applications in diverse areas, such as food and medicine. The production of extracellular gelatinase was confirmed in the yeasts *Metschnikowia* sp., *Leucosporidium fragarium*, and *Mrakia* sp., the last one being the yeast in which the highest gelatinase activity was detected. The enzyme was purified from cultures of *Mrakia* sp., and the effect of different physical?chemical factors on its activity was determined. The gelatinase produced by *Mrakia* sp. would correspond to a protein of relative molecular weight (rMW) 37,000, which displayed the highest activity at 36°C, pH 7.0, 10 mM CaCl₂, and 5 mM ZnSO₄.