The invention relates to microbiological biotechnology, in particular to a process for cultivation of yeast strain *Saccharomyces cerevisiae* CNMN-Y-20, and may be used in microbiological, food and pharmaceutical industries. The process, according to the invention, consists in that the yeast are cultivated on beer wort for 24 hours, at a temperature of 25° C, then are irradiated with millimetric waves with the frequency of 53.3 GHz, emitted continuously for 20 minutes, after which the yeast culture, with the concentration of 2×10^{6} cells/ml, is transferred to a YPD or Rieder sterile nutrient medium in an amount of 5 vol.% and is cultivated submerged under continuous stirring conditions of 200 rpm, at a temperature of 25° C, for 120 hours.

Claims: 1