The invention relates to biotechnology, in particular to processes for cultivation of *Propionibacterium freudenreichii s.s. shermanii* CNM-BP-01 – producer of porphyrins, vitamin B_{12} and exogenous lipases, and may be used in the pharmaceutical industry.

The claimed process for cultivation of *Propionibacterium freudenreichii s.s. shermanii* CNM-BP-01 includes inoculation of microorganisms on a nutrient medium, containing (g/L): corn extract 80,0; glucose 14,0; (NH4)₂SO₄ 3,5; CoCl₂·6H₂O 0,01; 5,6-dimethylbenzimidazole 0,03 and extract of cyanobacterium *Nostoc linckia* CNM-CB-03 in 55% alcoholic solution, which is added into the nutrient medium on the third day of cultivation in the quantity of 0,2...1,0 g/L recalculated for dry weight. At the same time, cultivation of propionic-acid bacteria is carried out during 7 days at a temperature of 28°C.

Claims: 1