

**95-0038**

The invention relates to the microbiologic biotechnology and may be used for biologic active materials preparation.

The proposed process includes the cultivation of *Propionibacterium freudenreichii* s.s. *shermanii* in the nutritive medium, containing maize extract, glucose,  $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$ ,  $(\text{NH}_4)_2\text{SO}_4$  and 5,6 dimethylbenzimidazole at mixed microorganisms culture, where microorganisms cultivation is conducted in the facultative-aerobic conditions at pH 6,8-7,0 on the nutritive medium, containing, in g/l:

maize extract	80,00
glucose	14,00
$(\text{NH}_4)_2\text{SO}_4$	3,5
$\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$	0,01

5,6 - dimethylbenzimidazole 0,03 and the introduction in the nutritive medium of 5,6 dimethylbenzimidazole and culture mixing is conducted during the second phase of fermentation.

The technical result of the invention consists in the optimization of the conditions and in preparation of the cultivation medium compound, providing the cyanocobalamin and porphyrin increased synthesis.