

Title	<i>Streptomyces massasporeus</i> CNMN-Ac-06 – source of biologically active substances for agriculture
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Patent no.	MD 1672 Y from 2022.09.08; Decision to grant patent no. 10219 / 2023.02.14
Description	Microbiological feed preparations are widely used in animal husbandry. These preparations include vitamins, amino acids, enzymes, lipid fractions, macro- and micro elements. They possess antioxidant, antibacterial, anti-stress, anti-inflammatory properties. There are microbial preparations based on streptomycetes, which in the process of synthesis of antibacterial substances form a large number of metabolites diverse in chemical structure, distinguished by high biological activity and the ability to correct a number of impaired physiological functions. The current invention relates to the strain <i>Streptomyces massasporeus</i> CNMN-Ac-06 and includes two directions: 1) Microbiological (MD 1672 Y) – increasing the productivity of bioactive substances in the strain <i>Streptomyces massasporeus</i> CNMN-Ac-06, by supplementing the nutrient medium with 1.37 g/l 4-aminobenzoic acid. The proposed medium contributes to the stimulation of: lipids by 32.28%, phospholipids by 111.5%, and steroids by 366.66%, in absolutely dry biomass. 2) Biotechnological (no. 10219) – feeding white rats (both

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male and female) with a standard diet supplemented with biomass of the *Streptomyces massasporeus* CNMN-Ac-06 (250 mg/kg body weight per day), cultivated on nutrient medium supplemented with 4-aminobenzoic acid, contributes to a significant increase in body weight of experimental animals, especially from the 5th to the 10th week of feeding, at males with 73.34–488.14%, and females with 52.71–108.86%.

Advantages: Supplementing the nutrient medium of the strain *Streptomyces massasporeus* CNMN-Ac-06 with 1.37 g/l 4-aminobenzoic acid stimulates the lipid content in the obtained biomass, and its use as a supplement in the food ration of Wistar rats contributes to increasing body mass.

Application: Microbiology, Biotechnology, Physiology, Agriculture.

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