ANNOTATION
of report on Research Practice of a two-year student, group BT-51m specialty 8.05140101 - Industrial Biotechnology
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on "Isolation of polyclonal antibodies to collagen using affinity and ion exchange chromatography"

Report on Research Practice is laid out on 39 pages of printed text. The report consists of an introduction, two chapters, conclusion, and a list of references that includes 4 drawings, 2 formulas and 6 tables.

The report on research practices contains "Literature studies" and "Experimental part".

In the introduction the urgency of the chosen research topic is explained as well as the description of its purpose and practice goals.

The object of the research was IgG fraction obtained by precipitation of immunized rabbit's serum saturated by the solution of ammonium sulfate.

The paper uses materials and methods to carry out desalination of immunoglobulin fractions through gel filtration on Sephadex G-25, the selection of immunoglobulin G (IgG) in chromatographic columns with Protein A-Sepharose and DEAE-Sepharose, electrophoretic separation of proteins by Lemly and spectrophotometric determining the concentration of proteins by Bradford.

The main results are: 1) received 3.075 mg of purified IgG with 20 cm 3 of initial serum of immunoglobulin fractions after purification on a column with Protein A-Sepharose.

2) received 5.123 mg of IgG, containing impurities of proteins with a molecular weight of 57-60 kDa, from 30 cm3 of original serum of immunoglobulin fractions after purification on a column with DEAE-Sepharose.

As a result of research practice following tasks have been resolved:

1) processed a number of methods: gel filtration, affinity and ion exchange chromatography, electrophoresis in PAGE, determination of protein concentration by Bradford.

2) identified the allocation efficiency of polyclonal antibodies of immunoglobulin fractions through a chromatography column with Protein A-Sepharose and DEAE-Sepharose.

3) comparative analysis of methods for the allocation of antibodies has been conducted, the advantages and disadvantages of each method have been presented and recommendations to the selection