Abstract

The aim of this diploma thesis was to analyze and then obtain MRCK alpha protein from biological samples. For the better visualization is protein kinase fused with green fluorescent protein (GFP), which fluoresces green light, when irradiated with ultraviolet light. Individual measurements were implemented by using the HPLC apparatus with UV and fluorescence detection. A necessary part of the implementation of a series of acts dealing with the characterization of available biological samples, which differ in their content from each other. The aim was to test a wide range of different columns, working on the principle of reverse-phase chromatography, ion exchange chromatography and gel permeation chromatography. Furthermore, it was necessary to find a suitable mobile phase and optimize the measuring conditions for the separation of proteins. Helpful in the identification of compounds present in the samples became mass spectrometry.