

Guidelines for Protein Separation Lab Write-up

Introduction

Brief discussion of protein separation techniques: gel filtration chromatography and SDS-PAGE.

Brief discussion of Beta-galactosidase

- Enzyme (MW, quaternary structure)

- Reaction catalyzed by beta- galactosidase

- Regulation of lac operon

- Role of IPTG

Materials and Methods

Table of materials/equipment used

Protocol (a knowledgeable person should be able to read this section and repeat your experiment).

Results and Discussion

Present your bar graph results from the gel filtration experiment and the SDS-PAGE. Make sure graphs and figures are labeled. For example, on the SDS-PAGE the sizes of the marker proteins, the identity of each lane (+ IPTG, - IPTG).

Identify the band that you think is beta-gal protein.

Brief summary of the project

Was it successful? If not, why not. What could you change?

Suggest further experiments, if you can think of any.

Approximately 5 pages, 12 point font, 1.5 or double spaced