

ABSTRACT BOOK

Surabaya, May 7th - 8th 2015

molecular OSAKA University
cellular life sciences MCLS IPR
MCLS 2015
INFECTIONOUS DISEASE IPR
DITD BIOCHEMISTRY STRUCTURAL BIOLOGY



UNIVERSITAS AIRLANGGA

INSTITUTE for **P** PROTEIN RESEARCH

OSAKA UNIVERSITY

PBI-281

The Role and Efficiency of Ammonium Sulphate Precipitation in Purification Process of Papain Crude Extract

Maria Goretti M. Purwanto

Faculty of Biotechnology, Universitas Surabaya Raya Kalirungkut, 60291 Surabaya, Indonesia
maria_gmp@staff.ubaya.ac.id

ABSTRACT

It has been common to do fractionation (for example using ammonium sulphate as a precipitating agent) before doing a more sophisticated method for purification of protein. The logic background is easy to understand, but in fact, the precipitation step often caused severe lost in yield and activity of the protein, making the whole purification effort too costly. In this work we evaluate the specific activity (thus, purification factor) and total activity (yield) during the purification process of papain crude extract using Ion Exchange Chromatography (IEC), with and without prior fractionation using ammonium sulphate. Detail phenomenon in each step was also recorded, including the UV spectra and SDS-PAGE profile of the intermediate purification products.

Keywords: *Ammonium Sulphate, Precipitation, Purification*