

## Investigation of extraction and purification of histone acetyl transferase enzyme from *Saccharomyces cerevisiae* and assay enzyme activity

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**Background and Aims:** Investigation of extraction and purification of histone acetyl transferase enzyme from *Saccharomyces cerevisiae* and assay enzyme activity.

**Methods:** *Saccharomyces cerevisiae* was cultured and cells precipitated by centrifuge. Cells were lysed and washed the final solution with butanol, acetone and ammonium sulfate, then was dialysed. Proteins were separated by gel filtration and measuring enzyme activity by HAT assay kit.

**Results:** The highest level of enzyme activity by kit was obtained in fraction number 13. This fraction showed one band in electrophoresis.

**Conclusions:** Purify levels and enzymatic activity have been obtained by method that used in this study was in acceptable level but more studies should be done in order to achieve high degree of purify and the amount of enzyme extracted.

**Keywords:** *Saccharomyces cerevisiae*; Histone acetyl transferase; HAT assay kit