

原著

# Candida albicans Aspartic Proteinaseの簡易検出法

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1994-04-20 00:00:00+09受理

## A Simple Detection Method of Candida albicans Aspartic Proteinase

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*(Accepted 1994-04-20 00:00:00+09)*

**Key words:** Candida albicans, Candida aspartic proteinase, hemoglobin agar plate

### Abstract

Twelve Candida strains were isolated from fur on the patient's tongues and their species were determined by using API-C-AUXANOGRAM. Six Candida strains were identified as Candida albicans, two as Candida tropicalis and two as Candida parapsilosis and two were identified as Candida guilliermondii. Those isolated and identified Candida strains were inoculated on hemoglobin agar plates and acid proteinase production was simply detected by the existence of halo around their developed streak. All of the six C. albicans strains produced acid proteinase but the other six Candida strains didn't form any detectable halo around their streak. C. albicans strains were cultured in the human hair-keratin medium and the culture fluid was applied into the holes with a series of protease inhibitors on hemoglobin agar plates to examine their enzymatic properties. The proteolytic activity was specifically inhibited only by pepstatin, which showed

that this proteolytic enzyme was Candida aspartic proteinase (CAP).

## 要約

患者の舌部白苔より、12株のCandidaを単離し、アピCオクサノグラムを利用して菌種の同定をおこなった。6株がCandida albicans、2株がCandida tropicalis、2株がCandida parapsilosis、2株がCandida guilliermondiiと同定された。これら単離、同定した12株のCandidaをヘモグロビン平板培地に移植培養した時に増殖菌帯の周囲に形成される口ハの有無により酸性プロテアーゼ産生を簡易に検出できた。C. albicansは6株すべて酸性プロテアーゼを産生したが、C. albicans以外の6株の増殖菌帯の周囲には口ハが形成されなかった。C. albicansをヒト毛髪ケラチン培地で培養し、培養上清を一連のプロテアーゼインヒビターとともにヘモグロビン平板培地上のホールに入れて培養し酵素の性状を調べた。酵素活性はPepstatinによってのみ阻害された。この結果は検出した酵素がCandida Aspartic Proteinase(CAP)であることを示している。

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