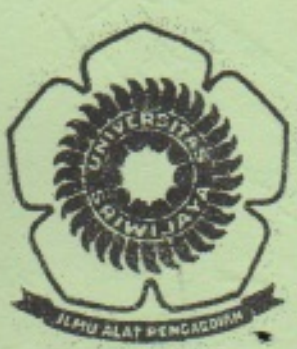
FINAL REPORT
INTERNATIONAL RESEARCH COLLABORATION



Candida tropicalis, Yeast Isolated from Tuak, for Efficient Bioethanol Fermentation from Lignocellulosic Biomass

Principal Investigator
Hermansyah, Ph.D. (NIDN : 191171101)

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earch Title	Yeast Isolated from Tuak, North Sumatera Indonesia Traditional Beverage, for efficient bioethanol fermentation from Ligno-cellulosic Biomass
cipal Investigator	
ull Name	Hermansyah
IIP/NIDN	197111191997021001/ 1911711001
ex	Male
osition	Lektor Kepala/ IIId/ Penata Tingkat I
aculty/Department	Mathematics and Natural Sciences/ Chemistry
esearch Center	-
ffice Address	Jurusan Kimia, FMIPA, Universitas Sriwijaya Jl. Raya Prabumulih KM 32, Inderalaya, Ogan Ilir Sumatera Selatan -30662
hone/ Facs/ E-mail	(711)-580269/ (711)-580056/ kimiamipaunsri@gmail.com
ome Address	Jalan Sukarela Lorong H.Cek Mid No.1326B Rt.21 Rw 7 KM7 Palembang 30153
hone/ Facs/ E-mail	0821-82532570/ hermansyah@unsri.ac.id
rnational Collaboration	
ull name	Prof. Dr. Satoshi Harashima
nstitution	Lab Molecular Genetics, Department of Biotechnology, Graduate School of Engineering, Osaka University
esearch Duration	3 years

earch Budget :

ars	Proposed to UNSRI	Counter Budget from Collaborator
ar 1	IDR 150.000.000	JPY 3.000.000 (in kind)
ar 2	IDR 150.000.000	JPY 2.000.000 (in kind)
ar 3	IDR 200.000.000	JPY 2.000.000 (in kind)

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ernational Collaborator

Principal Investigator,

of.Dr. Satoshi Harashima

Hermansyah, PhD.

Approved by
Head of Research Institute

Prof. Dr. H. M. Said, M.Sc.
NIP 19610812 198703 1 003

ABSTRACT

HT4, HT5, and HT10 isolated from tuak were identified as *Candida tropicalis*. ntation test of these *C.tropicalis* isolates displayed an ability to produce 6.55 % (v/v) 58% ethanol at 30°C and 42°C, respectively. These results indicated that *C.tropicalis* s more rapidly in utilize glucose and obtain higher levels of the production of ethanol higher temperature of 42°C than *S.cerevisiae*, a common yeast used for bioethanol tation. Then, dextrose, xylose, arabinose, and cellulose were used as sole carbon in Fermentation using *C.tropicalis*. The results showed that 10% dextrose-containing and 10% cellulose-containing YPC10 produced 5.51% Ethanol and 2.88% Ethanol, ively. This result also indicated that *C.tropicalis* simultaneously hydrolyzed and ed of cellulose. Fermentation of xylose and arabinose as sole carbon source produced oducts which needed to be elucidated.