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APPENDIXES

Aspergillus flavus parasiticus agar (AFPA) (Leontopoulos et al., 2003)

yeast extract	20	g
bacteriological peptone	10	g
ferric ammonium citrate	0.5	g
0.2% in Dichloran 95% ethanol	1.0	ml
chloramphenicol	0.1	g
agar	15	g
distilled water	1000	ml
final pH 6.0–6.5		

5% V8 juice agar

V8 juice	5%	vol/vol
pH 5.2		
agar	2%	wt/vol

Incubation at 30°C in the dark. Conidia from 7-day-old-cultures suspended in deionized water were used as inoculum.

Czapek-dox medium (Bayman and Cotty, 1991)

sucrose	30	g
sodium nitrate	3	g
di-potassium phosphate (potassium phosphate dibasic anhydrous)	1	g
magnesium sulfate (anhydrous)	0.5	g
potassium chloride	0.5	g
ferrous sulfate	0.01	g
adjust to pH 7		
agar	20	g
distilled water	1000	ml

Czapek-dox medium for mutant selection (Bayman and Cotty, 1991)

sucrose	30	g
sodium nitrate	3	g
di-potassium phosphate (potassium phosphate dibasic anhydrous)	1	g
magnesium sulfate (anhydrous)	0.5	g
potassium chloride	0.5	g
ferrous sulfate	0.01	g

for Nit selection add :

potassium chlorate	25	g
rose Bengal	50	mg
(10 ml of a 5 mg/ml 95% ethanol stock)		
adjust to pH 7		
agar	20	g
distilled water	1000	ml

Horn BW, and Greene RL (1995)

nitrite medium	:	replace NaNO ₃ with	0.7g	NaNO ₂
hypoxanthine medium:		replace NaNO ₃ with	0.1g	hypoxanthine
ammonium medium	:	replace NaNO ₃ with	0.9g	ammonium tartrate

nitrate nitrite hypoxanthine

niaD	-	+	+	nitrate non-utilizing
nirA	-	-	+	nitrite and nitrate non-utilizing
cnx	-	+	-	hypoxanthine and nitrate non-utilizing

selection of nit mutant

Types	Nitrate with clorate	nitrite	hypoxanthine	ammonium
niaD	-	+	+	+
cnx	-	+	-	+
nir	-	-	+	+
nii	-	-	+	+
wild type	+	+	+	+

Rice medium for detect aflatoxins producing fungi (modified from Shotwell et al, 1966)

5 g long grain rice in 5 ml distilled water

Rice medium for detect kojic acid producing fungi

5 g long grain rice in 15 ml distilled water

modified Yest extract medium (Horn et al., 2000)

sucrose	50	g
yeast extract	5	g
adjust to pH 6.5		
distilled water	1000	ml

Citrate utilizing medium (modified from Simmons' Citrate agar, Atlas and Snyder, 2006)

sodium citrate	2	g
Ammonium hydrogenphosphate	1	g
di-potassium phosphate (potassium phosphate dibasic anhydrous)	1	g
magnesium sulfate (anhydrous)	0.5	g
potassium chloride	0.5	g
ferrous sulfate	0.01	g
Bromthymol blue	0.08	g
adjust to pH 7		
agar	20	g
distilled water	1000	ml

Starch medium (Cotty and Tylor, 2003)

NaNO ₃	3 g
K ₂ HPO ₄	1 g
MgSO ₄ ·7H ₂ O	0.5 g
KCl	0.5 g
Glucose	36 g
Starch	20 g
Agar	13 g

The medium was adjusted to pH 6.0 prior to autoclaving

BIOGRAPHY

Mr. Khanchai Danmek was born on March 5, 1979 in Uttaradit province, Thailand. He received his Bachelor of Science degree in Biology in 1999 from Department of Science, Naresuan University and Master of Science degree of Biotechnology in 2003 from Biotechnology program, Department of Science, Chulalongkorn University. During his study in Chulalongkorn University, he received a teaching assistantship from the Graduate School of Chulalongkorn University, UDC Grant from Naresuan University, and Royal Golden Jubilee (RGJ) Grant from Chulalongkorn University. He started his Ph.D program in Biotechnology in June 2004.

