



# MIC Test Strip Technical Sheet Yeast

## *Candida* spp. and *Cryptococcus neoformans*

### Specimen

Blood, CSF, sterile body fluids and tissues, nasopharynx, urinary, respiratory and gastrointestinal tract.

	<i>Candida</i> spp.	<i>Cryptococcus neoformans</i>
<b>Medium</b>	R.P.M.I. Agar (Ref.11509)	
<b>Inoculum</b>	0.5 McFarland (Ref. 80400)	1 McFarland (Ref. 80401)
Suspension in physiological solution	Ensure to "double-dip" when inoculating plates i.e. after swabbing the plate the first time, soak the swab and streak the plate again.	
<b>Incubation</b>	35°C / ambient temperature (plates in plastic bag) / 24-48 hours. Confirm <i>C. glabrata</i> and <i>C. tropicalis</i> after 48 hours.	35°C / ambient temperature (plates in plastic bag) / 48-72 hours
<b>Interpretation of results</b>	Amphotericin B: interpret at complete inhibition of all growth. Flucytosine: interpret at almost complete (90%) inhibition. Azoles: interpret at the first point of significant inhibition/marked decrease in growth density. Refer to 80% inhibition principle to visually select the M.I.C. endpoint. Echinocandins: interpret trailing endpoints at the first visual point of significant inhibition i.e. 80% inhibition.	

	Quality Control (M.I.C. µg/mL) 48 hours incubation			CLSI INTERPRETATIVE CRITERIA (M.I.C. µg/mL)			EUCAST INTERPRETATIVE CRITERIA (M.I.C. µg/mL)		Example of ANTIBIOGRAM  140 mm petri dish
	<i>C. krusei</i> ATCC® 6258	<i>C. parapsilosis</i> ATCC® 22019	<i>C. albicans</i> ATCC® 90028	S	I	R	S	R	
<b>AMB AMPHOTERICIN B</b>	0.5-2	0.25-1	0.125-0.5						✓
<i>C. albicans</i>							≤1	>1	
<i>C. glabrata</i>							≤1	>1	
<i>C. tropicalis</i>							≤1	>1	
<i>C. krusei</i>							≤1	>1	
<i>C. parapsilosis</i>							≤1	>1	
<b>AND ANIDULAFUNGIN</b>	0.016-0.125	0.5-4	0.002-0.008						
<i>C. albicans</i>				≤0.25	0.5	≥1	≤0.03	>0.03	
<i>C. glabrata</i>				≤0.12	0.25	≥0.5	≤0.06	>0.06	
<i>C. tropicalis</i>				≤0.25	0.5	≥1	≤0.06	>0.06	
<i>C. krusei</i>				≤0.25	0.5	≥1	≤0.06	>0.06	
<i>C. parapsilosis</i>				≤2	4	≥8	≤0.002	>4	
<i>C. guilliermondii</i>				≤2	4	≥8			
<b>CAS CASPOFUNGIN</b>	0.25-1	0.25-2	0.064-0.25						
<i>C. albicans</i>				≤0.25	0.5	≥1			
<i>C. glabrata</i>				≤0.12	0.25	≥0.5			
<i>C. tropicalis</i>				≤0.25	0.5	≥1			
<i>C. krusei</i>				≤0.25	0.5	≥1			
<i>C. parapsilosis</i>				≤2	4	≥8			
<i>C. guilliermondii</i>				≤2	4	≥8			
<b>FLU FLUCONAZOLE</b>	128-≥256	1-8	0.125-0.5						✓
<i>C. albicans</i>				≤2	4	≥8	≤2	>4	
<i>C. glabrata</i>				-	32	≥64	≤0.002	>32	
<i>C. parapsilosis</i>				≤2	4	≥8	≤2	>4	
<i>C. tropicalis</i>				≤2	4	≥8	≤2	>4	
Non-species related breakpoints				≤2	4	≥8	≤2	>4	
<b>FC FLUCYTOSINE</b>	≥32	0.064-0.25	0.5-2						✓
<b>ITC ITRACONAZOLE</b>	0.25-1	0.064-0.25	0.064-0.25						✓
<i>C. albicans</i>							≤0.06	>0.06	
<i>C. parapsilosis</i>							≤0.12	>0.12	
<i>C. tropicalis</i>							≤0.12	>0.12	
<b>KE KETOCONAZOLE</b>	0.25-1	0.032-0.125	0.008-0.032						
<b>MYC MICA FUNGIN</b>	0.032-0.25	0.25-2	0.004-0.032						
<i>C. albicans</i>				≤0.25	0.5	≥1	≤0.016	>0.016	
<i>C. glabrata</i>				≤0.06	0.12	≥0.25	≤0.03	>0.03	
<i>C. tropicalis</i>				≤0.25	0.5	≥1			
<i>C. krusei</i>				≤0.25	0.5	≥1			
<i>C. parapsilosis</i>				≤2	4	≥8	≤0.002	>2	
<i>C. guilliermondii</i>				≤2	4	≥8			
<b>POS POSACONAZOLE</b>	0.125-0.5	0.032-0.25	0.032-0.125						
<i>C. albicans</i>							≤0.06	>0.06	
<i>C. parapsilosis</i>							≤0.06	>0.06	
<i>C. tropicalis</i>							≤0.06	>0.06	

	Quality Control (M.I.C. µg/mL) 48 hours incubation			CLSI INTERPRETATIVE CRITERIA (M.I.C. µg/mL)			EUCAST INTERPRETATIVE CRITERIA (M.I.C. µg/mL)		Example of ANTIBIOGRAM  140 mm petri dish
	<i>C. krusei</i> ATCC® 6258	<i>C. parapsilosis</i> ATCC® 22019	<i>C. albicans</i> ATCC® 90028	S	I	R	S	R	
<b>VO</b> VORICONAZOLE <i>C. albicans</i> <i>C. krusei</i> <i>C. parapsilosis</i> <i>C. tropicalis</i>	0.25-1	0.016-0.064	0.004-0.016	≤0.12 0.5 ≤0.12 ≤0.12	0.25-0.5 1 0.25-0.5 0.25-0.5	≥1 ≥2 ≥1 ≥1	≤0.12  ≤0.12 ≤0.12	>0.12  >0.12 >0.12	✓

#### References

- CLSI M27-A3. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Approved Standard - Third Edition.
- CLSI M27-S4. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational supplement.
- EUCAST. Antifungal clinical breakpoint tables for interpretation of MICs. Version 7.0, valid from 2014-08-12.
- Antifungal MTS quality control data are not identical to CLSI specifications in all cases. MTS ranges at 48 hours are based on extensive data generated from in house testing.

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**LIOFILCHEM s.r.l.**

Via Scozia zona ind.le, 64026 Roseto degli Abruzzi (Te) Italy  
Tel. +39 0858930745 Fax +39 0858930330 [www.liofilchem.net](http://www.liofilchem.net) [liofilchem@liofilchem.net](mailto:liofilchem@liofilchem.net)

