**Results of Testing Diverse Existing Bioactive Compounds vs *Madurella mycetomatis***

Data from Wendy van de Sande. Released by Matthew Todd as part of Open Source Mycetoma. Licence CC-BY.

Number of strains used: 10-36; depending on the paper and number of drugs tested)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Antifungal agent | Structure | MIC50 (ug/ml) | MIC90 (ug/ml) | Range (ug/ml) | Reference |
| Ketoconazole  (KTZ) | [Ketoconazole ≥98% (HPLC)](http://www.sigmaaldrich.com/catalog/product/sigma/k1003?lang=en&region=NL) | 0.125 | 0.25 | <0.01-1 | 1 |
| Itraconazole  (ITZ) | [Itraconazole ≥98% (TLC)](http://www.sigmaaldrich.com/catalog/product/sigma/i6657?lang=en&region=NL) | 0.06 | 0.125 | <0.01-0.5 | 1,2 |
| Posaconazole  (PCZ) | Image of Posaconazole | 0.03 | 0.06 | <0.03-0.125 | 3 |
| Fluconazole  (FLZ) | Image of Fluconazole | 16 | >128 | 0.25->128 | 1 |
| Voriconazole  (VCZ) | Image of Voriconazole | 0.125 | 0.5 | <0.01-1 | 1 |
| Isavuconazole  (ISA) | http://www.chemicalbook.com/CAS/GIF/241479-67-4.gif | 0.03 | 0.06 | <0.01-0.125 | 4 |
| Ravuconazole  (RVZ) | http://www.chemicalbook.com/CAS/GIF/170864-29-6.gif | 0.004 | 0.016 | <0.002-0.03 | 5 |
| Amphotericin B  (AMB) | Image of Amphotericin B solution | 2 | 8 | <0.01-4 | 1,2 |
| Terbinafine  (TBF) | Image of Terbinafine hydrochloride | 8 | >16 | 1->16 | 3 |
| 5-flucytosine  (5FC) | [Flucytosine European Pharmacopoeia (EP) Reference Standard](http://www.sigmaaldrich.com/catalog/product/sial/f0175000?lang=en&region=NL) | >128 | >128 | >128 | 1 |
| Caspofungin  (CAS) | http://www.chemicalbook.com/CAS/GIF/162808-62-0.gif | 128 | 128 | 16->128 | 6 |
| Anidulafungin | Anidulafungin Structure | >128 | >128 | 0.5->128 | 6 |
| Micafungin | http://www.chemicalbook.com/CAS/GIF/235114-32-6.gif | >128 | >128 | 8->128 | 6 |
| Artemisinin | Image of Artemisinin | >16 | >16 | 0.03->16 | 7 |
| Beta-amyrin | http://www.chemicalbook.com/CAS/GIF/559-70-6.gif | >256 | >256 | 0.5->256 | 8 |
| Beta-amyrone | http://www.chemicalbook.com/CAS/GIF/638-97-1.gif | >128 | >128 | 0.25->128 | 8 |
| Beta-sitosterol | [https://upload.wikimedia.org/wikipedia/commons/thumb/b/be/Sitosterol_structure.svg/200px-Sitosterol_structure.svg.png](https://www.google.nl/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjEwNX9jdnLAhUH-Q4KHSHPDrEQjRwIBw&url=https://nl.wikipedia.org/wiki/B%C3%A8ta-sitosterol&bvm=bv.117604692,d.ZWU&psig=AFQjCNFD4iHXVWkJYNmzjsBtpsD-cK26ZA&ust=1458901561590391) | >128 | >128 | 0.125->128 | 8 |
| stigmatriene |  | 32 | >128 | 0.125->128 | 8 |
| 1% povidone iodine | http://www.chemicalbook.com/CAS/GIF/25655-41-8.gif | 1:10 (v/v) | 1:10 (v/v) | 1:100->1:10 (v/v) | 9 |
| 0.5% taurolidine ringer | http://www.chemicalbook.com/CAS/GIF/19388-87-5.gif | 1:20 (v/v) | 1:20 (v/v) | 1:100-1:10 (v/v) | 9 |
| 0.02% chlorhexidine | http://www.chemicalbook.com/CAS/GIF/55-56-1.gif | 1:20 (v/v) | >1:10 (v/v) | 1:200->1:10 (v/v) | 9 |
| 1% H2O2 | http://www.chemicalbook.com/CAS/GIF/7722-84-1.gif | 1:100 (v/v) | 1:20 (v/v) | 1:200-1:20 (v/v) | 9 |

**Other mycetoma causative agents which we tested in the past:**Due to the small numbers only ranges are given. Results are in ug/ml

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Number of species** | **KTZ** | **ITZ** | **PCZ** | **FCZ** | **VCZ** | **AMB** | **5FC** | **CAS** | **Refe-rence** |
| *Madurella pseudomycetomatis* | 1 | 0.03 | 0.03 | 0.01 | 128 | 0.06 | 0.5 | >64 | >16 | 10 |
| *Madurella Tropicana* | 1 | 0.01 | 0.01 | 0.03 | 4 | 0.03 | 0.13 | >64 | >16 | 10 |
| *Madurella fahalii* | 1 | 2 | >16 | 1 | >256 | 1 | 0.5 | >64 | >16 | 10 |
| *Trematosphaeria grisea* | 3 | 0.25-1 | 0.13-0.5 | <0.01-0.25 | 16-64 | 0.13-0.25 | 8->16 | 16-64 | >16 | 11 |
| *Falciformispora senegalensis* | 4 | 0.5-1 | 0.13-0.25 | 0.13-0.25 | 64 | 0.25-0.5 | 2 | 8-32 | 16->16 | 11 |
| *Falciformispora tompkinsii* | 2 | 1 | 0.25 | 0.25 | 64 | 0.5 | 2 | 8 | >16 | 11 |
| *Medicopsis romeroi* | 5 | 2-8 | 0.5->16 | 0.25-1 | >256 | 0.13-0.25 | 0.13 | 8-32 | 4->16 | 11 |
| *Biatriospora mackinnonii* | 2 | 0.5 | 0.5 | 0.13-0.25 | 64 | 0.13-0.25 | 0.5-1 | 8-64 | >16 | 11 |

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