

A *C. elegans*-based, whole animal, *in vivo* screen for the identification of antifungal compounds

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Traditional antimicrobial screens focus on compounds that block the growth of microbial organisms. A new *Caenorhabditis elegans*-based bioassay can be used for the identification of antifungal compounds that are effective against *Candida albicans*. According to the protocol, adult nematodes are infected with *C. albicans* and moved to 96-well plates containing the tested compounds. In the presence of compounds with no antifungal activity, the fungus kills the worms and develops filaments that penetrate through the cuticle. In contrast to traditional screening methods and mammalian models, this facile, time-efficient and less costly assay allows the study of *Candida* cells in nonplanktonic form and may allow the concurrent evaluation of toxicity and antifungal activity and identify compounds that target virulence factors or modify host immune response. The screening assay takes about 5–6 d depending on the experimental design.