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Antifungal Agent VL-2397

National Cancer Institute

Source

National Cancer Institute. Antifungal Agent VL-2397. NCI Thesaurus. Code C153067.

A cyclic hexapeptide and natural compound isolated from the Malaysian leaf litter fungus, Acremonium persicinium MF-347833, with potential antifungal activity against various invasive fungal infections including invasive aspergillosis (IA). Upon administration, VL-2397, by resembling the siderophore ferrichrome, is specifically taken up by fungal cells through the membrane-bound transporter siderophore iron transporter 1 (Sit; Sit1). Upon fungal cell entry, VL-2397 targets and binds to an as of yet undisclosed intracellular site, thereby killing fungal cells. Since mammalian cells lack the Sit1 transporter, VL-2397 is not taken up by human cells.