

Product Data Sheet

Product Name: Isavuconazole

Cat. No.: GC16707

Chemical Properties

Cas. No. 241479-67-4

Chemical Name 4-[2-[(2R,3R)-3-(2,5-difluorophenyl)-3-hydroxy-4-(1,2,4-triazol-1-yl)butan-2-yl]-1,3-thiazol-4-yl]benzonitrile

SMILES CC(C1=NC(=CS1)C2=CC=C(C=C2)C#N)C(CN3C=NC=N3)(C4=C(C=CC(=C4)F)F)O

Formula $C_{22}H_{17}F_2N_5OS$

M.Wt 437.47

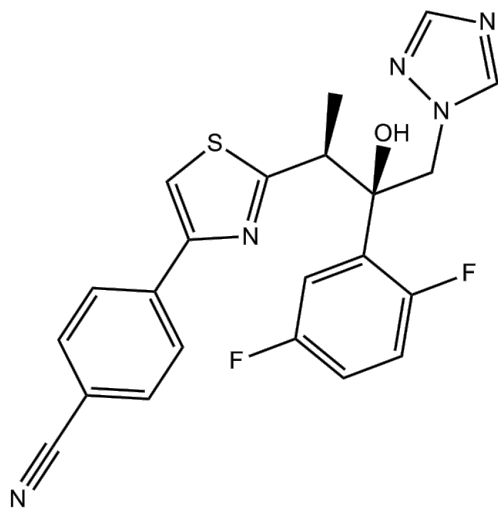
Solubility $\geq 19.8\text{mg/mL}$ in DMSO

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Isavuconazole (BAL-4815) is a triazole prodrug with antifungal activity against yeasts, molds, and dimorphic fungi. Isavuconazole inhibits ergosterol biosynthesis and results in the disruption of fungal membrane structure and function. Isavuconazole is a moderate inhibitor of CYP3A4.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Isavuconazole (BAL-4815) shows good activity against all *Candida* spp., with active MIC₅₀ of 0.004 mg/L. The MIC₅₀s/MIC₉₀s range from 0.002/0.004 mg/L for *C. albicans* to 0.25/0.5 mg/L for *C. glabrata*[1]. Isavuconazole has potent in vitro activity against most common *Aspergillus* species, *Purpureocillium lilacinum*, and *Scedosporium apiospermum*[2]. Isavuconazole shows potent activity against molds, yeasts, and dimorphic fungi. *Rhizopus* isolates have MIC values to isavuconazole as low as 0.12 µg/mL with others as high as 32 µg/mL[3]. In the study of pharmacokinetics and pharmacodynamics of isavuconazole against the GFP transformant, F/11628, NIH 4215, and F/16216, the modal MICs of isavuconazole are 1, 8, 1, 4 mg/L, respectively[4].

References:

- [1]. Seifert H, et al. In vitro activities of isavuconazole and other antifungal agents against *Candida* bloodstream isolates. *Antimicrob Agents Chemother*. 2007 May;51(5):1818-21.
- [2]. Steinmann J, et al. In Vitro Activity of Isavuconazole against *Rasamsonia* Species. *Antimicrob Agents Chemother*. 2016 Oct 21;60(11):6890-6891.
- [3]. Donnelley MA, et al. Isavuconazole in the treatment of invasive aspergillosis and mucormycosis infections. *Infect Drug Resist*. 2016 Jun 2;9:79-86.
- [4]. Box H, et al. Pharmacodynamics of Isavuconazole in a Dynamic In Vitro Model of Invasive Pulmonary Aspergillosis. *Antimicrob Agents Chemother*. 2015 Oct 26;60(1):278-87.

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