

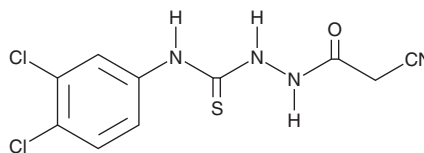
PRODUCT INFORMATION



iKIX1

Item No. 19839

CAS Registry No.: 656222-54-7
Formal Name: 2-cyano-acetic acid,
2-[[[(3,4-dichlorophenyl)amino]
thioxomethyl]hydrazide]
MF: $C_{10}H_8Cl_2N_4OS$
FW: 303.2
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 241, 279 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

iKIX1 is supplied as a crystalline solid. A stock solution may be made by dissolving the iKIX1 in the solvent of choice, which should be purged with an inert gas. iKIX1 is soluble in the organic solvent DMSO.

Description

iKIX1 is an inhibitor of interactions between the transcription co-activator Mediator complex and the pleiotropic drug resistance (CgPdr1) transcription factor in the pathogen *C. glabrata*.¹ It inhibits the interaction between the KIX domain of the Mediator subunit CgGal11A and the activation domain of CgPdr1 ($IC_{50} = 190.2 \mu M$). iKIX1 (10 and 30 μM) inhibits ketoconazole-induced expression of CgPdr1-target genes involved in multidrug resistance and drug efflux in *C. glabrata*. It increases the sensitivity of azole-resistant *C. glabrata* strains expressing CgPDR1 gain-of-function mutations to the antifungal compounds fluconazole (Item No. 11594) and ketoconazole (Item No. 15212) in a concentration-dependent manner. iKIX1 (100 mg/kg) decreases fungal burden in the kidney and spleen in a mouse model of infection with azole-sensitive or -resistant *C. glabrata* when administered in combination with low and high doses of fluconazole, respectively.

Reference

1. Nishikawa, J.L., Boeszoermenyi, A., Vale-Silva, L.A., *et al.* Inhibiting fungal multidrug resistance by disrupting an activator-Mediator interaction. *Nature* **530(7591)**, 485-489 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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