

PRODUCT INFORMATION



Dioclatin A (hydrochloride)

Item No. 37795

Formal Name: 2-[[[(3S)-3-[[[(2R,3S)-3-amino-2-methyl-1-oxooctyl]amino]-1-oxooctyl]amino]-2-butenic acid, monohydrochloride

Synonym: DotA

MF: $C_{21}H_{39}N_3O_4 \cdot HCl$

FW: 434.0

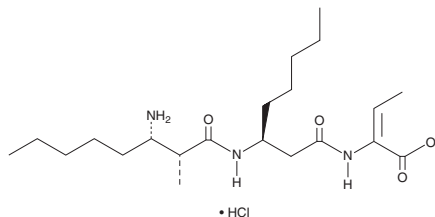
Purity: $\geq 90\%$

Supplied as: A solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years

Item Origin: Bacterium/*Streptomyces* sp.



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

Laboratory Procedures

Dioclatin A (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the dioclatin A (hydrochloride) in the solvent of choice. Dioclatin A (hydrochloride) is soluble in organic solvents such as DMSO (when acidic) and methanol (when acidic), which should be purged with an inert gas. It is also soluble in water (when acidic). We do not recommend storing the aqueous solution for more than one day.

Description

Dioclatin A is a bacterial metabolite that has been found in *Streptomyces* and has mycotoxin inhibitory activity.¹ It inhibits the production of aflatoxin and norsolorinic acid, a biosynthetic precursor of aflatoxin, in *A. parasiticus* (IC_{50} s = 4 and 0.8 μM , respectively) but does not inhibit mycelial growth of *A. parasiticus* when used at a concentration of 50 μM . Dioclatin A (50 μM) decreases the mRNA expression of genes encoding aflatoxin biosynthetic enzymes and increases the production of the fungal metabolite kojic acid (Item No. 22712) in *A. parasiticus*. It inhibits the production of the mycotoxin sterigmatocystin (Item No. 11441) in *A. nidulans* (IC_{50} = 0.3 μM) and the conidiation of *A. parasiticus* and *A. nidulans* when used at a concentration of 50 μM .

Reference

1. Yoshinari, T., Akiyama, T., Nakamura, K., *et al.* Dioclatin A is a strong inhibitor of aflatoxin production by *Aspergillus parasiticus*. *Microbiology (Reading)* **153**(Pt 8), 2774-2780 (2007).

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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