

Curvularin PRODUCT DATA SHEET

issue date 01/06/2020

Product Name: Curvularin

Product Number: C189

CAS Number: 10140-70-2

Molecular Formula: $C_{16}H_{20}O_5$

Molecular Weight: 292.3

Appearance: White solid

Storage Conditions: -20°C

Description: Curvularin is a 12-membered macrocyclic lactone incorporating a resorcinyl

moiety, produced by a number of fungal species including Curvularia,

Penicillium and Alternaria. Curvularin exhibits a distinctly different biological

profile to the structurally similar resorcylic acid lactones such as the

zearalenones, radicicol and LL Z1640-2. Curvularin inhibits cell division by

disrupting mitotic spindle formation and is known to be phytotoxic.

Curvularin is soluble in ethanol, methanol, DMF and DMSO.

Mechanism of Action: Curvularin inhibits cell division by disrupting mitotic spindle formation and is

known to be phytotoxic. More recent investigations have shown that curvularin

is a highly selective transcription-based inhibitor of iNOS-dependent NO

production, acting on the Janus tyrosine kinase-STAT pathway.

References: Studies in relation to biosynthesis. Part XX. The structure and biosynthesis of

curvularin. Birch J. A. et al. J. Chem. Soc. 1959, 3146.

Sporogen, S14-95 and S-curvularin, three inhibitors of human inducible nitric-oxide synthase expression isolated from fungi. Yao Y. et al. Mol. Pharmacol.

2003, 63, 383.

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