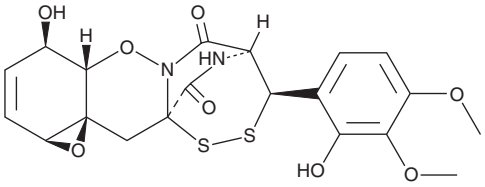
PRODUCT INFORMATION

Gliovirin

Item No. 28583

CAS Registry No.:	83912-90-7
Formal Name:	(1aS,4R,4aS,8S,9R,11aR,12aS)-4,4a,8,9-tetrahydro-4-hydroxy-9-(2-hydroxy-3,4-dimethoxyphenyl)-12H-8,11a-(iminomethano)-1aH,7H-[1,2,4]dithiazepino[4,3-b]oxireno[e][1,2]benzoxazine-7,13-dione
MF:	$C_{20}H_{20}N_2O_8S_2$
FW:	480.5
Purity:	≥70%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Fungus/*Penicillium sp.*



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

Laboratory Procedures

Gliovirin is supplied as a solid. A stock solution may be made by dissolving the gliovirin in the solvent of choice, which should be purged with an inert gas. Gliovirin is soluble in ethanol, methanol, and DMSO.

Description

Gliovirin is a fungal metabolite that has been found in *T. harzianum* and has fungicidal, antimicrobial and anti-inflammatory activities.[1] It is active against the plant pathogenic fungus *P. ultimum* (MIC = 60 ng/ml) and the parasite *T. brucei brucei* (IC_{50} = 90 ng/ml), but has no effect on the plant pathogenic fungi *R. solani*, *P. omnivorum*, *T. basicola*, *R. arrhizus*, and *V. dahliae* or the bacteria *B. thuringiensis*, *P. fluorescens*, and *X. malvacearum* when used at concentrations up to 1,000 ng/ml.[2,3] Gliovirin decreases phorbol 12-myristate 13-acetate (TPA)- and ionomycin-induced increased expression of COX-2 (IC_{50} = 1 µM) and protein levels of IL-2 in Jurkat cells (IC_{50} = 5.2 µM).[1]

References

1. Rether, J., Serwe, A., Anke, T., *et al.* Inhibition of inducible tumor necrosis factor-α expression by the fungal epipolythiodiketopiperazine gliovirin. *Biol. Chem.* **388(6)**, 627-637 (2007).
2. Howell, C.R. and Stipanovic, R.D. Gliovirin, a new antibiotic from *Gliocladium virens*, and its role in the biological control of *Pythium ultimum*. *Can. J. Microbiol.* **29(3)**, 321-324 (1983).
3. Iwatsuki, M., Otoguro, K., Ishiyama, A., *et al. In vitro* antitrypanosomal activity of 12 low-molecular-weight antibiotics and observations of structure/activity relationships. *J. Antibiot. (Tokyo)* **63(10)**, 619-622 (2010).

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