PRODUCT DATA SHEET

## fine chemicals

## (-)-Rugulosin

Code No.: BIA-R1452
Pack sizes: $\mathbf{1 m g}, \mathbf{5 m g}$


Synonyms : Radicalisin

## Specifications

CAS \#
: 21884-45-7
Molecular Formula
: $\mathrm{C}_{30} \mathrm{H}_{22} \mathrm{O}_{10}$
Molecular Weight
: 542.5
Source
: Penicillium sp.
Appearance
: Yellow brown solid
Purity
Long Term Storage
: >95\% by HPLC

Solubility
: $-20^{\circ} \mathrm{C}$
: Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.

## Application Notes

$(-)$-Rugulosin is the less common optical isomer of the mycotoxin, (+)-rugulosin, which was first isolated from Myrothecium verrucaria in 1968. The isomers appear not to be co-produced but both occur widely in several fungal genera. (-)-Rugulosin has been shown to be antiviral. (-)Rugulosin is the less studied of the isomers and its role as a mycotoxin is implied rather than established. There are few comparative studies of the relative potency of the isomers.

## References

1. Fungal metabolites. XXXII. Renewed investigation on (-)-flavoskyrin and its analogs Takeda N. et al., Tetrahedron 1973, 29, 3703.
2. Further studies on the structures of luteoskyrin, rubroskyrin and rugulosin. Sankawa U. et al., Tet. Lett. 1968, 53, 5557.
3. Inhibition of phage growth by an antibiotic rugulosin isolated from Myrothecium verucaria. I. Properties of the anti-phage effect. Nakamura S. et al., Jpn. J. Microbiol. 1971, 5, 113.
4. Rugulosin, a crystalline colouring matter of Penicillium rugulosum Thom. Breen J. et al., Biochem. J. 1955, 60, 618. 2. Effect of a rugulosin-producing endophyte in Picea glauca on Choristoneura fumiferana. Miller J.D. et al., J. Chem. Ecol. 2008, 34, 362. 3. Cytotoxicity against insect cells of entomopathogenic fungi of the genera Hypocrella (anamorph Aschersonia): possible agents for biological control. Watts P. et al., Mycological Research 2003, 107, 581.
