

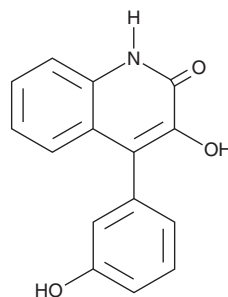
# PRODUCT INFORMATION



## Viridicatol

Item No. 25206

CAS Registry No.: 14484-44-7  
Formal Name: 3-hydroxy-4-(3-hydroxyphenyl)-2(1H)-quinolinone  
MF:  $C_{15}H_{11}NO_3$   
FW: 253.3  
Purity:  $\geq 95\%$   
Supplied as: A solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 2$  years



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

### Laboratory Procedures

Viridicatol is supplied as a solid. A stock solution may be made by dissolving the viridicatol in the solvent of choice. Viridicatol is soluble in organic solvents such as methanol, ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

### Description

Viridicatol is a fungal metabolite that has been found in various *Penicillium* species as well as *Phoma*.<sup>1,2</sup> It suppresses the expression of COX-2 and inducible nitric oxide synthase (iNOS) and inhibits production of nitric oxide and prostaglandin  $E_2$  (PGE<sub>2</sub>) in LPS-stimulated RAW 264.7 and BV2 cells.<sup>3</sup> It also inhibits NF- $\kappa$ B DNA-binding activity, nuclear translocation of NF- $\kappa$ B p65 and p50 heterodimers, and blocks degradation of inhibitor of kappa B  $\alpha$  (I $\kappa$ B $\alpha$ ) in the cytoplasm of LPS-stimulated RAW 264.7 and BV2 cells. Viridicatol inhibits the growth of *F. graminearum* in a disc assay.<sup>2</sup> It also inhibits protein tyrosine phosphatase 1B (PTB1B) *in vitro* (IC<sub>50</sub> = 64  $\mu\text{M}$ ).<sup>4</sup>

### References

1. Birkinshaw, J.H., Luckner, M., Mohammed, Y.S., *et al.* Studies in the biochemistry of micro-organisms. 114. Viridicatol and cyclophenol, metabolites of *Penicillium viridicatum* westling and *Penicillium cyclopium* westling. *Biochem J.* **89**(2), 196-202 (1963).
2. Mousa, W.K., Schwan, A.L., Davidson, J., *et al.* An endophytic fungus isolated from finger millet (*Eleusine coracana*) produces anti-fungal natural products. *Front. Microbiol.* **6**:1157, (2015).
3. Ko, W.G., Sohn, J.H., Kim, Y.-C., *et al.* Viridicatol from marine-derived fungal strain *Penicillium* sp. SF-5295 exerts anti-inflammatory effects through inhibiting NF- $\kappa$ B signaling pathway on lipopolysaccharide-induced RAW264.7 and BV2 cells. *Nat. Prod. Sci.* **21**(4), 240-247 (2015).
4. Sohn, J.H., Lee, Y.-R., Lee, D.-S., *et al.* PTP1B inhibitory secondary metabolites from marine-derived fungal strains *Penicillium* spp. and *Eurotium* sp. *J. Microbiol. Biotechnol.* **23**(9), 1206-1211 (2013).

#### 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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