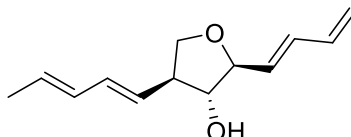


Aureonitol

Code No.: **BIA-A2348**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms : (-)-Aureonitol, (2S,3R,4S)-Aureonitol

Specifications

CAS #	: 71774-51-1
Molecular Formula	: C ₁₃ H ₁₈ O ₂
Molecular Weight	: 206.28
Source	: <i>Chaetomium</i> sp.
Appearance	: Off-white solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

Application Notes

Aureonitol is a tetrahydrofuran isolated from *Chaetomium* sp. that acts like a transcriptional regulator for the biosynthesis of other secondary metabolites. The absolute configuration was confirmed in 2008. Aureonitol inhibits influenza A and B virus replication, being more effective against influenza A (H3N2) with EC₅₀ of 100 nM. Aureonitol acts via inhibition of hemagglutination significantly impairing virus adsorption. Aureonitol has low cytotoxicity with a IC₅₀ value of 1426 μM.

References

1. Rearranged tetrahydrofurans from *Chaetomium cochlioides*. Abraham W.R. & Arfmann H-A. *Phytochem.* 1992, 31, 2405.
2. Total synthesis and proof of relative stereochemistry of (-)-aureonitol. Jervis P.J. & Cox L.R. *J. Org. Chem.* 2008, 73, 7616.
3. Targeted disruption of transcriptional regulators in *Chaetomium globosum* activates biosynthetic pathways and reveals transcriptional regulator-like behavior of aureonitol. Nakazawa T et al. *J Am Chem Soc.* 2013, 135, 13446.
4. Aureonitol, a fungi-derived tetrahydrofuran, inhibits influenza replication by targeting its surface glycoprotein hemagglutinin. Sacramento C.Q. et al. *PLoS One* 2015, 10, e0139236.