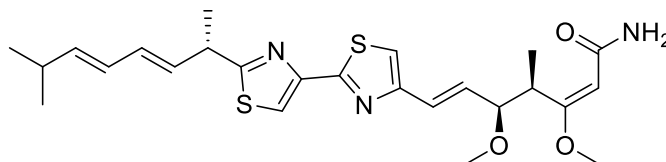


## Myxothiazol

Code No.: **BIA-M2449**

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



Synonyms : (+)-Myxothiazol A, Myxothiazol A, Myxothiazole A

## Specifications

CAS #	: 76706-55-3
Molecular Formula	: C <sub>25</sub> H <sub>33</sub> N <sub>3</sub> O <sub>3</sub> S <sub>2</sub>
Molecular Weight	: 487.68
Source	: <i>Myxococcus fulvus</i>
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

## Application Notes

Myxothiazol is a secondary metabolite of *Myxococcus fulvus* active against fungi, in particular Trichophyton mentagrophytes, *Pythium debaryanum* and *Picularia oryzae* (MIC 0.02, 0.02 and 0.8 µg/mL). Myxothiazol is weakly active against some bacteria including *Staphylococcus aureus* (MIC 30–50 µg/mL). Myxothiazol is cytostatic when tested against *Candida albicans*, blocking oxygen consumption. Myxothiazol inhibits cAMP production and antagonises the activities of 3β-hydroxysteroid dehydrogenase, 17α-hydroxylase/C17-20 lyase and 17β-hydroxysteroid dehydrogenase, as well as suppressing LH-stimulated testosterone production in Leydig cells.

## References

1. Myxothiazol, an antibiotic from *Myxococcus fulvus* (Mxyobacterales) I. Cultivation, isolation, physico-chemical and biological properties. Gerth K. et al. J Antibiot. 1980, 33, 1474 and 1480.
2. Myxothiazol, a new antibiotic interfering with respiration. Thierbach G. and Reichenbach H. Antimicrob Agents Chemother. 1981, 19, 504.
3. Effect of myxothiazol on Leydig cell steroidogenesis: inhibition of luteinizing hormone-mediated testosterone synthesis but stimulation of basal steroidogenesis. Midzak A.S. et al. Endocrinol. 2007, 148, 2583.