**Myxothiazol**

**Cat. No.:** HY-112177  
**CAS No.:** 76706-55-3  
**Molecular Formula:** C$_{25}$H$_{33}$N$_{3}$O$_{3}$S$_{2}$  
**Molecular Weight:** 487.68  
**Target:** Fungal; Mitochondrial Metabolism; Antibiotic  
**Pathway:** Anti-infection; Metabolic Enzyme/Protease  
**Storage:** Please store the product under the recommended conditions in the COA.

**BIOLOGICAL ACTIVITY**

**Description**
Myxothiazol, an antifungal antibiotic, is a mitochondrial electron transport chain complex III (bc1 complex) inhibitor. Myxothiazol inhibits the growth of many yeasts and fungi at concentrations between 0.01 and 3 μg/ml$^1$$^2$.

**In Vitro**
Myxothiazol inhibits the growth of many yeasts and fungi at concentrations between 0.01 and 3 μg/ml$^2$.
Myxothiazol binds to the ubiquinol oxidation site Qo of complex III and blocks electron transfer from ubiquinol to cytochrome b and thus inhibits complex III activity$^3$.

**In Vivo**
Myxothiazol (i.p.; 0.56 mg/kg; daily for 4 days)-induced complex III inhibition can be induced in mice for four days in a row without overt hepatotoxicity or lethality$^3$.

<table>
<thead>
<tr>
<th>Animal Model</th>
<th>C57Bl/J6 mice$^3$</th>
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</thead>
<tbody>
<tr>
<td>Dosage</td>
<td>0.56 mg/kg</td>
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<tr>
<td>Administration</td>
<td>I.p.; 24 hours intervals for at most 4 times</td>
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<td>Result</td>
<td>A reversible complex III activity decrease to 50% of control value occurred at 2 h post-injection. At 74 h only minor histological changes in the liver were found, supercomplex formation was preserved and no significant changes in the expression of genes indicating hepatotoxicity or inflammation were found.</td>
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**REFERENCES**


Caution: Product has not been fully validated for medical applications. For research use only.

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