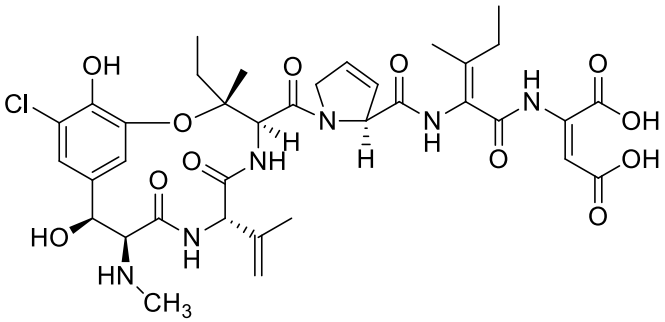
bioaustralis
fine chemicals

PRODUCT DATA SHEET

Phomopsin A

Code No.: **BIA-P1193**

Pack sizes: **1 mg, 5 mg**



Synonyms :

Specifications

CAS #	:	**64925-80-0**
Molecular Formula	:	**$C_{36}H_{45}ClN_6O_{12}$**
Molecular Weight	:	**789.2**
Source	:	***Phomposis leptostromiformis***
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

Application Notes

Phomopsin A is a an acidic 13-membered cyclic hexapeptide-like metabolite with three unusual amino acids linked in an 'ansa' macrocycle with a tripeptide tail, terminating in a dicarboxylic acid. Phomopsin A is a potent mycotoxin produced by the fungus, Phomopsis leptostromiformis, and causes lupinosis in livestock fed infected lupins. Phomopsin A is an important bioprobe for understanding cellular structural proteins. It binds selectively to dimeric tubulin at a site overlapping that of vinblastine and maytansine, inhibiting the formation of the microtubule spindle to block cell division. Uniquely, phomopsin A protects tubulin from decay.

References

1. Structure elucidation and absolute configuration of phomopsin A, a hexapeptide mycotoxin produced by phomopsis leptostromiformis. Culvenor C. C. J. et al., Tetrahedron 1989, 45, 2351.
2. Interaction of phomopsin A and related compounds with purified sheep brain tubulin. E. Lacey et al., Biochem. Pharmacol. 1987, 36, 2133.
3. Interaction of phomopsin A with normal and subtilisin-treated bovine brain tubulin. Chaudhuri AR and Ludueña R.F., J. Prot. Chem. 1997, 16, 99.

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