

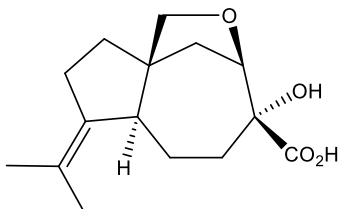
Catalog # 10-3498

Aspterric acid

CAS# 67309-95-9

Microbial product from *Penicillium sp.*

Lot # X108297



Aspterric acid is a fungal sesquiterpenoid¹ plant growth inhibitor discovered using a resistance-gene-directed approach.¹ It is an inhibitor of dihydroxy-acid dehydratase (DHAD, IC_{50} =0.31 and 0.5 μ M for *Ate*DHAD and *Ath*DHAD respectively), an enzyme in the branched-chain amino acid biosynthetic pathway in plants and is an effective herbicide in spray applications. It has no significant cytotoxicity in human cell lines (up to 500 μ M).² Inhibits the development of pollen in *Arabidopsis thaliana*.³

- 1) Tsuda *et al.* (1978), *Aspterric acid, a new sesquiterpenoid of the carotene group, a metabolite from Aspergillus terreus IFO-6123. X-Ray crystal and molecular structure of its p-bromobenzoate*; J. Chem. Soc. Chem. Commun., **4** 161
- 2) Yan *et al.* (2018), *Resistance-gene-directed discovery of a natural-product herbicide with a new mode of action*; Nature., **559** 415
- 3) Shimada *et al.* (2002), *Aspterric acid and 6-hydroxymellein, inhibitors of pollen development in Arabidopsis thaliana, produced by Aspergillus terreus*; Z. Naturforsch. C, **57** 459

PHYSICAL DATA

Molecular Weight:	266.33
Molecular Formula:	C ₁₅ H ₂₂ O ₄
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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