Product Data Sheet

Product Name: Destruxin B
Cat. No.: GC10661

Chemical Properties

Cas. No.	2503-26-6		
Chemical Name	cyclo[N-methyl-L-alanyl-β-alanyl-(2R)-2-hydroxy-4-methylpentanoyl-L-prolyl-L-isoleucyl-N-methyl-L-valyl]		
SMILES	O=C(N[C@]([C@@H](C)CC)([H])C(N(C)[C@@H](C(C)C)C(N(C)[C@H]1C)=O)=O)[C@@]2([H])N(CCC2)C([C@@H](CC(C)C)OC(CCNC1=O)=O)=O		
Formula	$C_{30}H_{51}N_5O_7$	M.Wt	593.8
Solubility	≤10mg/ml in dichloromethane,;10mg/ml in methanol;10mg/ml in ethyl acetate	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Destruxin B		

Background

Destruxin B, a cyclic hexadepsipeptide mycotoxin, has been reported to have insecticidal and phytotoxic activity and can also induce apoptosis.

Mycotoxins has been identified as a class of toxic secondary metabolites produced by organisms of the fungus kingdom and are able to cause disease and death in both humans and animals.

In vitro: The results of a previous study showed that destruxin B exhibited selective and significant time- and dose-dependent inhibitory effects on the viabilities of GNM and TSCCa cells but not on GF cells. These findings indicated that destruxin B was able to induce tumor specific growth inhibition in cancer cells through Bax/Bcl-2-mediated intrinsic mitochondrial apoptotic pathway in both time- and dose-dependent manners

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

[1].

In vivo: Animal study found that the daily subcutaneously administered destruxin B at 0.6-15 mg/kg was safe and effective in inhibiting the growth of CRC cells. In addition, the expression of cleaved poly (ADP-ribose) polymerase, Bax, as well as active caspase-3 were observed with destruxin B treatment. Moreover, the increase in tumor volumes of destruxin B treated groups were significantly lower than those of the mock-treated group [2].

Clinical trial: So far, no clinical study has been conducted.

References:
[1] Huang Liu R, Chen SP, Lu TM, Tsai WY, Tsai CH, Yang CC1, Tzeng YM. Selective apoptotic cell death effects of oral cancer cells treated with destruxin B. BMC Complement Altern Med. 2014 Jun 28;14:207. doi: 10.1186/1472-6882-14-207.
[2] Lee YP, Wang CW, Liao WC, Yang CR, Yeh CT, Tsai CH, Yang CC, Tzeng YM. In vitro and in vivo anticancer effects of destruxin B on human colorectal cancer. Anticancer Res. 2012 Jul;32(7):2735-45.