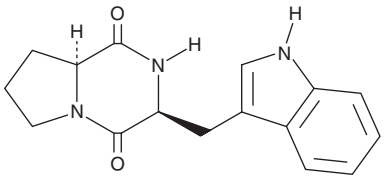
PRODUCT INFORMATION

Brevianamide F

Item No. 23493

CAS Registry No.:	38136-70-8
Formal Name:	(3S,8aS)-hexahydro-3-(1H-indol-3-ylmethyl)-pyrrolo[1,2-a]pyrazine-1,4-dione
Synonym:	cyclo-(L-Trp-L-Pro), Cyclo-L-tryptophyl-L-proline
MF:	$C_{16}H_{17}N_3O_2$
FW:	283.3
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Brevianamide F is supplied as a crystalline solid. A stock solution may be made by dissolving the brevianamide F in the solvent of choice. Brevianamide F is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of brevianamide F in ethanol is approximately 1 mg/ml and approximately 33 mg/ml in DMSO and DMF.

Brevianamide F is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, brevianamide F should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Brevianamide F has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Brevianamide F is an alkaloid metabolite produced by various *Streptomyces*, *Actinomycetes*, and *Aspergillus* strains that has diverse biological activities.[1-3] It inhibits growth of *M. luteus* and *S. aureus* in an inhibitory disc assay when used at a concentration of 30 µg/disc as well as the Bacille Calmette-Guerin *M. bovis* strain (MIC = 12.5 µg/ml).[2,3] Brevianamide F has antifouling activity, inhibiting attachment of *B. neritina* larvae to PVC plates without inducing lethality (EC_{50} = 6.35 µg/ml; LC_{50} = >200 µg/ml in paint used to coat PVC plates).[1]

References

1. Zhang, X.-Y., Xu, X.-Y., Peng, J., *et al.* Antifouling potentials of eight deep-sea-derived fungi from the South China Sea. *J. Ind. Microbiol. Biotechnol.* **41(4)**, 741-748 (2014).
2. Ben Ameur Mehdi, R., Shaaban, K.A., Rebai, I.K., *et al.* Five naturally bioactive molecules including two rhamnopyranoside derivatives isolated from the *Streptomyces* sp. strain TN58. *Nat. Prod. Res.* **23(12)**, 1095-1107 (2009).
3. Huang, P., Xie, F., Ren, B., *et al.* Anti-MRSA and anti-TB metabolites from marine-derived *Verrucosispora* sp. MS100047. *Appl. Microbiol. Biotechnol.* **100(17)**, 7437-7447 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM