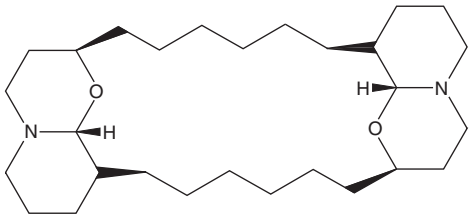
PRODUCT INFORMATION

Araguspongin B

Item No. 10006797

CAS Registry No.: 123000-02-2
Formal Name: [1R-(1R*,4aR*,11S*,12aR*,13R*,16aR*,23S*,24aR*)]-eicosahydro-5H,17H-1,23:11,13-diethano-2H,14H-[1,11]dioxacycloeicosino[2,3-b:12,13-b']dipyridine
MF: $C_{28}H_{50}N_2O_2$
FW: 446.7
Purity: ≥90%
Supplied as: A clear film
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Araguspongin B is supplied as a clear film. A stock solution may be made by dissolving the araguspongin B in an organic solvent purged with an inert gas. Araguspongin B is freely soluble in organic solvents such as chloroform, ethyl acetate, and methyl acetate. Araguspongin B is slightly soluble in DMSO.

Araguspongin B is sparingly soluble in aqueous buffers. Therefore, further dilutions of the organic solvent solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Xestospongins and araguspongins are marine natural products first isolated from Pacific basin sponges, and noted to have vasodilatory properties.[1] Inositol phosphates (IPs) are important signal transduction messengers acting *via* IP_3 receptors to promote the mobilization of Ca^{2+} from intracellular stores.[2] Araguspongin B antagonizes the calcium-releasing action of inositol 1,4,5-trisphosphate at the receptor level in cerebral microsomes, with an IC_{50} of 0.6 µM.[3] It is nearly as potent as xestospongin C as an antagonist of the IP_3 receptor.

References

1. Nakagawa, M. and Endo, M. Structures of xestospongin A, B, C and D, novel vasodilative compounds from marine sponge, *Xestospongia exigua*. *Tetrahedron Lett.* **25(30)**, 3227-3230 (1984).
2. Majerus, P.W. Inositol phosphate biochemistry. *Annu. Rev. Biochem.* **61**, 225-250 (1992).
3. Gafni, J., Munsch, J.A., Lam, T.H., *et al.* Xestospongins: Potent membrane permeable blockers of the inositol 1,4,5-triphosphate receptor. *Neuron* **19**, 723-733 (1997).

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