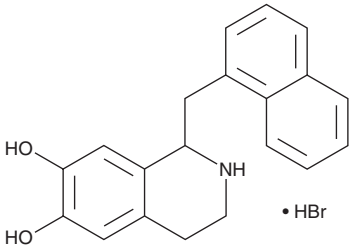
PRODUCT INFORMATION

YS-49

Item No. 30970

CAS Registry No.:	132836-42-1
Formal Name:	1,2,3,4-tetrahydro-1-(1-naphthalenylmethyl)-6,7-isoquinolinediol, monohydrobromide
MF:	$C_{20}H_{19}NO_2$ • HBr
FW:	386.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 225 nm
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

YS-49 is supplied as a crystalline solid. A stock solution may be made by dissolving the YS-49 in the solvent of choice, which should be purged with an inert gas. YS-49 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of YS-49 in these solvents is approximately 30 mg/ml.

YS-49 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, YS-49 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. YS-49 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

YS-49 is an inhibitor of platelet aggregation.[1] It inhibits ADP-, collagen-, or epinephrine-induced platelet aggregation in isolated human platelets (IC_{50}s = 730, 92, and 3.4 µM, respectively). YS-49 also inhibits platelet aggregation and production of thromboxane A_2 (TXA_2) induced by arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) in isolated rat platelets (IC_{50}s = 3.3 and 32.8 µM, respectively).[2] It reduces LPS-induced contractions in isolated endothelium-denuded rat aortic strips in a concentration-dependent manner.[3] YS-49 (50 mg/kg) decreases thrombus weight in a rat model of arterio-venous shunt thrombosis.[1] It increases survival in a mouse model of septicemia induced by LPS when administered at doses of 10 and 20 mg/kg.[3]

References

1. Yun-Choi, H.S., Pyo, M.K., Park, K.M., *et al.* Antithrombotic effects of YS-49 and YS-51--1-naphthylmethyl analogs of higenamine. *Thromb. Res.* **104(4)**, 249-255 (2001).
2. Pyo, M.K., Kim, J.M., Jin, J.-L., *et al.* Effects of higenamine and its 1-naphthyl analogs, YS-49 and YS-51, on platelet TXA_2 synthesis and aggregation. *Thromb. Res.* **120(1)**, 81-86 (2007).
3. Kang, Y.J., Koo, E.B., Lee, Y.S., *et al.* Prevention of the expression of inducible nitric oxide synthase by a novel positive inotropic agent, YS 49, in rat vascular smooth muscle and RAW 264.7 macrophages. *Br. J. Pharmacol.* **128(2)**, 357-364 (1999).

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