

Product Data Sheet

Product Name: YS-49
Cat. No.: GC37954

Chemical Properties

Cas. No. 132836-42-1

SMILES OC1=CC2=C(C(CC3=C4C=CC=CC4=CC=C3)NCC2)C=C1O.[H]Br

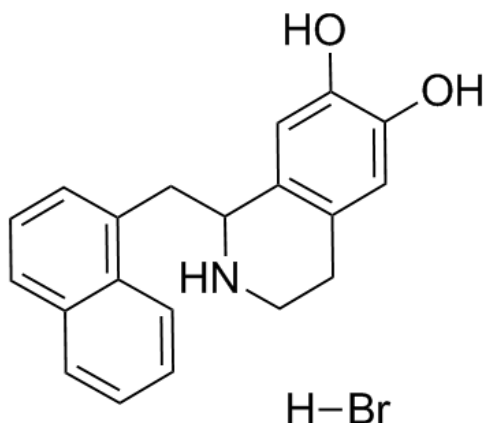
Formula $C_{20}H_{20}BrNO_2$ M.Wt 386.28

Solubility DMSO : ≥ 100 mg/mL (258.88 mM) Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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



Background

YS-49 inhibits Ang II-stimulated proliferation of VSMCs via induction of HO-1. IC50 value: Target: HO-1
YS-49 is a novel positive inotropic isoquinoline compound. YS-49 has potential as a therapeutic

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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strategy for the pathogenesis of Ang II-related vascular diseases such as hypertension and atherosclerosis, via the induction of HO-1 gene activity. YS-49 induced HO-1 protein production in a dose-and time-dependent manner in VSMCs. Treatment with YS-49 significantly and dose-dependently inhibited Ang II-induced VSMC proliferation, ROS production, and phosphorylation of JNK, but not P38 MAP kinase or ERK1/2. YS-49 (32.8 microM) exhibited much stronger inhibitory effects on TXA(2) formation. The higher inhibitory potencies of YS-49 (IC(50): 3.3microM) than higenamine (IC(50): 140 microM) on AA induced rat platelet aggregation was presumed to be the result of low inhibitory effect of higenamine than YS-49 on TXA(2) production from AA. The oral administration of YS-49 (50 mg/kg) increased the recovery rates from the acute thrombotic challenge in mice and lowered the weight of thrombus formed inside the AV shunt tube in rats.

[1]. Lee YS, Kim CH, Yun-Choi HS, et al. Cardiovascular effect of a naphthylmethyl substituted tetrahydroisoquinoline, YS 49, in rat and rabbit. Life Sci. 1994;55(21):PL415-20. [2]. Kang YJ, Koo EB, Lee YS, 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. 1999;128(2):357-64. [3]. Yun-Choi HS, Pyo MK, Park KM, et al. Antithrombotic effects of YS-49 and YS-51--1-naphthylmethyl analogs of higenamine. Thromb Res. 2001;104(4):249-55. [4]. Pyo MK, Yun-Choi HS, Chang KC, et al. Effects of two tetrahydroisoquinolines (YS-49 and YS-51) on experimental disseminated intravascular coagulation induced by lipopolysaccharide in rats. Arzneimittelforschung. 2004;54(11):705-10. [5]. Pyo MK, Kim JM, Jin JL, et al. Effects of higenamine and its 1-naphthyl analogs, YS-49 and YS-51, on platelet TXA2 synthesis and aggregation. Thromb Res. 2007;120(1):81-6. [6]. Sun JJ, Kim HJ, Seo HG, et al. YS49, 1-(alpha-naphthylmethyl)-6,7-dihydroxy-1,2,3,4-tetrahydroisoquinoline, regulates angiotensin II-stimulated ROS production, JNK phosphorylation and vascular smooth muscle cell proliferation via the induction of heme oxygenase-1. Life Sci. 2008;82(11-12):600-7.

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