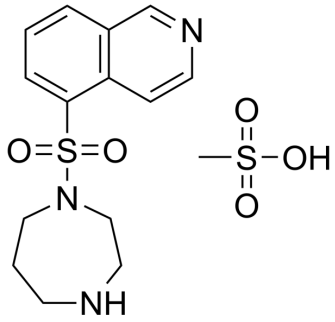
Fasudil mesylate

Cat. No.:	HY-10341D
CAS No.:	1001206-62-7
Molecular Formula:	$C_{15}H_{21}N_3O_5S_2$
Molecular Weight:	387.47
Target:	ROCK; Calcium Channel; Autophagy; PKA; PKC
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Stem Cell/Wnt; TGF-beta/Smad; Membrane Transporter/Ion Channel; Neuronal Signaling; Autophagy; Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Fasudil (HA-1077; AT877) mesylate is a nonspecific and orally active RhoA/ROCK inhibitor and also has inhibitory effect on protein kinases, with an K_i of 0.33 μM for ROCK1, IC_{50}s of 0.158 μM and 4.58 μM, 12.30 μM, 1.650 μM for ROCK2 and PKA, PKC, PKG, respectively. Fasudil mesylate is also a potent Ca^{2+} channel antagonist and vasodilator[1][2][3][4][5][6].
IC_{50} & Target	Ki: 0.33 μM (ROCK1)[1] IC50: 0.158 μM (ROCK2), 4.58 μM (PKA), 12.30 μM (PKC), 1.650 μM (PKG)[1]

CUSTOMER VALIDATION

- Cell Mol Immunol. 2023 Mar 2;1-14.
- Sci Transl Med. 2018 Jul 18;10(450):eaaq1093.
- J Exp Clin Cancer Res. 2020 Jun 16;39(1):113.
- Clin Transl Med. 2022 Oct;12(10):e1036.
- Clin Transl Med. 2022 Jul;12(7):e961.

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REFERENCES

[1]. Chen M, et al. Fasudil and its analogs: a new powerful weapon in the long war against central nervous system disorders? Expert Opin Investig Drugs. 2013 Apr;22(4):537-50.

[2]. Huang XN, et al. The effects of fasudil on the permeability of the rat blood-brain barrier and blood-spinal cordbarrier following experimental autoimmune encephalomyelitis. J Neuroimmunol. 2011 Oct 28;239(1-2):61-7.

[3]. Uehata M, et al. Calcium sensitization of smooth muscle mediated by a Rho-associated protein kinase in hypertension. Nature. 1997 Oct 30;389(6654):990-4.

[4]. Fukushima M, et al. Fasudil hydrochloride hydrate, a Rho-kinase (ROCK) inhibitor, suppresses collagen production and enhances collagenase activity in hepatic stellate cells. Liver Int. 2005 Aug;25(4):829-38.

[5]. Zhang J, et al. Inhibition of the activity of Rho-kinase reduces cardiomyocyte apoptosis in heart ischemia/reperfusion via suppressing JNK-mediated AIF translocation. Clin Chim Acta. 2009 Mar;401(1-2):76-80.

[6]. Sun X, et al. The selective Rho-kinase inhibitor Fasudil is protective and therapeutic in experimental autoimmune encephalomyelitis. J Neuroimmunol. 2006 Nov;180(1-2):126-34. Epub 2006 Sep 22.

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