

Product Data Sheet

Product Name: TS-011
Cat. No.: GC32657

Chemical Properties

Cas. No. 339071-18-0

SMILES C1C(C=C(/N=C/NO)C=C1)=C1N2CCOCC2

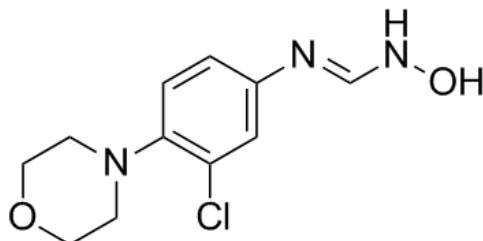
Formula $C_{11}H_{14}ClN_3O_2$ M.Wt 255.7

Solubility Soluble in DMSO Storage Store at -20°C

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



Protocol

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

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

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Animal experiment: The studies are performed using 58 male C57BL/6J mice (8 weeks old) weighing 20 to 26 g. TS-011 (0.3 mg/kg) or a vehicle is infused intravenously for 1 h every 6 h in a mouse model of stroke, induced by transient occlusion of the middle cerebral artery occlusion following photothrombosis. The cerebral blood flow velocity and the vascular perfusion area of the peri-infarct microvessels are measured using in vivo two-photon imaging[1].

References:

- [1]. Marumo T, et al. The inhibitor of 20-HETE synthesis, TS-011, improves cerebral microcirculatory autoregulation impaired by middle cerebral artery occlusion in mice. *Br J Pharmacol.* 2010 Nov;161(6):1391-402.
- [2]. Hacein-Bey L, et al. Reversal of delayed vasospasm by TS-011 in the dual hemorrhage dog model of subarachnoid hemorrhage. *AJNR Am J Neuroradiol.* 2006 Jun-Jul;27(6):1350-4.

Background

TS-011 is a selective inhibitor of 20-Hydroxyeicosatetraenoic acid synthesis.

TS-011 is a selective inhibitor of 20-Hydroxyeicosatetraenoic acidsynthesis. TS-011 at a dose of 0.3 mg/kg inhibits the reduction in the blood flow velocities at 1 and 7 h after reperfusion ($P<0.001$). In addition, TS-011 inhibits the increase in the blood flow velocity at 24 h after reperfusion ($P<0.01$). TS-011 protects the microvascular perfusion area from the loss observed in vehicle-treated mice. TS-011, at a dose of 0.3 mg/kg, also reduces the infarct volume by almost 40% ($P<0.05$)[1]. In 9 dogs with delayed vasospasm, acute blockade of the synthesis of 20-HETE with TS-011 (1 mg/kg IV) significantly increases the diameter of the basilar artery by 39%[2].

- [1]. Marumo T, et al. The inhibitor of 20-HETE synthesis, TS-011, improves cerebral microcirculatory autoregulation impaired by middle cerebral artery occlusion in mice. *Br J Pharmacol.* 2010 Nov;161(6):1391-402. [2]. Hacein-Bey L, et al. Reversal of delayed vasospasm by TS-011 in the dual hemorrhage dog model of subarachnoid hemorrhage. *AJNR Am J Neuroradiol.* 2006 Jun-Jul;27(6):1350-4.

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