

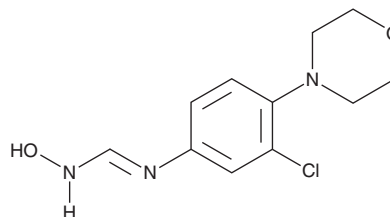
# PRODUCT INFORMATION



## TS-011

Item No. 9002862

**CAS Registry No.:** 339071-18-0  
**Formal Name:** N-[3-chloro-4-(4-morpholinyl)phenyl]-N'-hydroxy-methanimidamide  
**MF:** C<sub>11</sub>H<sub>14</sub>ClN<sub>3</sub>O<sub>2</sub>  
**FW:** 255.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 213, 271 nm  
**Supplied as:** A 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

TS-011 is supplied as a solid. A stock solution may be made by dissolving the TS-011 in the solvent of choice, which should be purged with an inert gas. TS-011 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of TS-011 in these solvents is approximately 2 and 3 mg/ml, respectively.

### Description

TS-011 is an inhibitor of 20-hydroxyeicosatetraenoic acid (20-HETE) synthesis.<sup>1</sup> It inhibits 20-HETE synthesis in human and rat renal microsomes (IC<sub>50</sub>s = 8.42 and 9.19 nM, respectively), as well as by the cytochrome P450 (CYP) isoforms CYP4F2, CYP4F3A, CYP4F3B, and CYP4A11 in cell-free assays (IC<sub>50</sub>s = 30.4, 42.6, 43.0, and 188 nM, respectively). It is selective for these CYPs over CYP1A2, CYP2C9, CYP2C19, CYP2D6, and CYP3A4 (IC<sub>50</sub>s = >60 μM for all), as well as a panel of receptors and other enzymes at 1 μM. TS-011 (0.01-1 mg/kg, i.v.) reverses decreases in cerebral blood flow and increases in cerebrospinal fluid 20-HETE levels in a rat model of subarachnoid hemorrhage. It also reduces infarct volume and prevents neurological deficits in a rat model of stroke induced by middle cerebral artery occlusion (MCAO).<sup>2</sup>

### References

1. Miyata, N., Seki, T., Tanaka, Y., *et al.* Beneficial effects of a new 20-hydroxyeicosatetraenoic acid synthesis inhibitor, TS-011 [N-(3-chloro-4-morpholin-4-yl) phenyl-N'-hydroxyimido formamide], on hemorrhagic and ischemic stroke. *J. Pharmacol. Exp. Ther.* **314**(1), 77-85 (2005).
2. Omura, T., Tanaka, Y., Miyata, N., *et al.* Effect of a new inhibitor of the synthesis of 20-HETE on cerebral ischemia reperfusion injury. *Stroke* **37**(5), 1307-1313 (2006).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/28/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM