

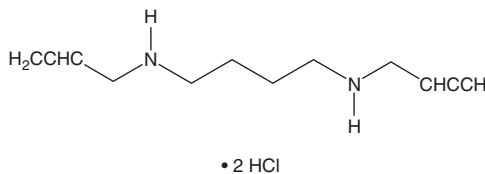
# PRODUCT INFORMATION



## MDL 72527 (hydrochloride)

Item No. 13996

**CAS Registry No.:** 93565-01-6  
**Formal Name:** N<sup>1</sup>,N<sup>4</sup>-di-2,3-butadien-1-yl-1,4-butanediamine, dihydrochloride  
**MF:** C<sub>12</sub>H<sub>20</sub>N<sub>2</sub> • 2HCl  
**FW:** 265.2  
**Purity:** ≥95%  
**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

MDL 72527 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the MDL 72527 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. MDL 72527 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of MDL 72527 (hydrochloride) in DMSO is approximately 0.33 mg/ml. MDL 72527 (hydrochloride) is slightly soluble in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of MDL 72527 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of MDL 72527 (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

MDL 72527 is a polyamine oxidase (PAO) inhibitor that inhibits spermine oxidase and N<sup>1</sup>-acetyl polyamine oxidase (IC<sub>50</sub>s = 6.1 and 0.02 μM, respectively).<sup>1</sup> It does not inhibit monoamine oxidase or D-amino acid oxidase. MDL 72527 inhibits PAO-dependent H<sub>2</sub>O<sub>2</sub> production *in vitro* and *in vivo* and is used to study the role of PAO activity in diverse models, including infection, cancer, and hyperoxia.<sup>2-4</sup>

### References

1. Moriya, S.S., Miura, T., Takao, K., *et al.* Development of irreversible inactivators of spermine oxidase and N<sup>1</sup>-acetyl polyamine oxidase. *Biol. Pharm. Bull.* **37(3)**, 475-480 (2014).
2. Chaturvedi, R., Cheng, Y., Asim, M., *et al.* Induction of polyamine oxidase 1 by *Helicobacter pylori* causes macrophage apoptosis by hydrogen peroxide release and mitochondrial membrane depolarization. *J. Biol. Chem.* **279(38)**, 40161-40173 (2004).
3. Goodwin, A.C., Destefano, C.E., Wu, S., *et al.* Polyamine catabolism contributes to enterotoxigenic *Bacteroides fragilis*-induced colon tumorigenesis. *Proc. Natl. Acad. Sci. USA* **108(37)**, 15354-15359 (2011).
4. Patel, C.A., Xu, Z., Xing, J., *et al.* Treatment with polyamine oxidase inhibitor reduces microglial activation and limits vascular injury in ischemic retinopathy. *Biochim Biophys. Acta.* **1862(9)**, 1628-1639 (2016).

#### 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, 11/15/2022

#### 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