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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

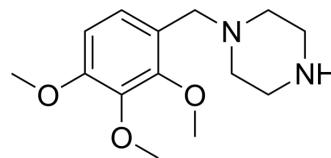
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Trimetazidine (Standard)

Cat. No.:	HY-B0968AR
CAS No.:	5011-34-7
Molecular Formula:	C ₁₄ H ₂₂ N ₂ O ₃
Molecular Weight:	266.34
Target:	Autophagy
Pathway:	Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Trimetazidine (Standard) is the analytical standard of Trimetazidine. This product is intended for research and analytical applications. Trimetazidine is a selective long chain 3-ketoacyl coenzyme A thiolase inhibitor with an IC ₅₀ of 75 nM, which can inhibit β-oxidation of free fatty acid (FFA). Trimetazidine is an effective antianginal agent and a cytoprotective agent, has anti-oxidant, anti-inflammatory, antinociceptive and gastroprotective properties. Trimetazidine triggers autophagy. Trimetazidine is also a 3-hydroxyacyl-CoA dehydrogenase (HADHA) inhibitor ^{[1][2][3][4]} .
IC₅₀ & Target	IC ₅₀ : 75 nM (long chain 3-ketoacyl coenzyme A thiolase) ^[2] β-oxidation ^[2] Autophagy ^[3] 3-hydroxyacyl-CoA dehydrogenase (HADHA) ^[4]

REFERENCES

- [1]. Shenghu He, et al. Protective effects of trimetazidine against vascular endothelial cell injury induced by oxidation. Journal of Geriatric Cardiology, December 2008, Vol 5 No 4.
- [2]. Kantor PF, et al. The antianginal drug trimetazidine shifts cardiac energy metabolism from fatty acid oxidation to glucose oxidation by inhibiting mitochondrial long-chain 3-ketoacyl coenzyme A thiolase. Circ Res. 2000 Mar 17;86(5):580-8.
- [3]. Jain S, et al. Trimetazidine exerts protection against increasing current electroshock seizure test in mice. Seizure. 2010 Jun;19(5):300-2.
- [4]. Chrusciel P, et al. Defining the role of trimetazidine in the treatment of cardiovascular disorders: some insights on its role in heart failure and peripheral artery disease. Drugs. 2014 Jun;74(9):971-80.
- [5]. Hossain F, et al. Inhibition of Fatty Acid Oxidation Modulates Immunosuppressive Functions of Myeloid-Derived Suppressor Cells and Enhances Cancer Therapies. Cancer Immunol Res. 2015 Nov;3(11):1236-47.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA