



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

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)



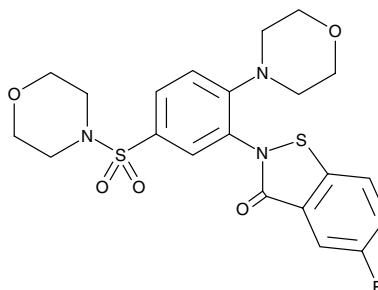
Product Information



ML-345

Item No. 17633

CAS Registry No.: 1632125-79-1
Formal Name: 5-fluoro-2-[2-(4-morpholinyl)-5-(4-morpholinylsulfonyl)phenyl]-1,2-benzisothiazol-3(2H)-one
MF: C₂₁H₂₂FN₃O₅S₂
FW: 479.5
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 225, 265 nm



Laboratory Procedures

For long term storage, we suggest that ML-345 be stored as supplied at -20°C. It should be stable for at least two years.

ML-345 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-345 in the solvent of choice. ML-345 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ML-345 in these solvents is approximately 1 and 5 mg/ml, respectively.

ML-345 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-345 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ML-345 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Insulin-degrading enzyme (IDE) is a thiol-sensitive zinc-metalloproteinase that acts as the major insulin-degrading protease *in vivo*, mediating the termination of insulin signaling.¹ In addition to regulating insulin action in diabetes pathogenesis, IDE plays a role in Varicella-Zoster virus infection and degradation of amyloid-β, a peptide implicated in Alzheimer's disease. ML-345 is a small molecule inhibitor that selectively targets cysteine⁸¹⁹ in IDE with an EC₅₀ value of 188 nM.² It demonstrates 10-fold selectivity for IDE over a panel of enzymes with reactive cysteine residues.²

References

1. Maiani, J.P., McFedries, A., Foda, Z.H., *et al.* Anti-diabetic activity of insulin-degrading enzyme inhibitors mediated by multiple hormones. *Nature* **511**(7507), 94-98 (2014).
2. Bannister, T.D., Wang, H., Abdul-Hay, S.O., *et al.* ML345, a small-molecule inhibitor of the insulin-degrading enzyme (IDE), *in* Probe Reports from the NIH Molecular Libraries Program [Internet], **1 R03 DA024888-01 (MLSCN cycle 6)**, 1 (2014).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/17633

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 04/28/2015