

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 <u>mail@szabo-scandic.com</u> www.szabo-scandic.com

PRODUCT INFORMATION



JTE-013

Item No. 10009458

CAS Registry No.:	383150-41-2	
Formal Name:	N-(2,6-dichloro-4-pyridinyl)-2-	
	[1,3-dimethyl-4-(1-methylethyl)-	
	1H-pyrazolo[3,4-b]pyridin-6-yl]-	
	hydrazinecarboxamide	
MF:	C ₁₇ H ₁₉ Cl ₂ N ₇ O	
FW:	408.3	
Purity:	≥98%	
UV/Vis.:	λ _{max} : 216, 248, 304 nm	
Supplied as:	A crystalline solid	
Storage:	-20°C	ĊI
Stability:	≥2 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

JTE-013 is supplied as a crystalline solid. A stock solution may be made by dissolving the JTE-013 in the solvent of choice, which should be purged with an inert gas. JTE-013 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of JTE-013 in ethanol is approximately 30 mg/ml and approximately 20 mg/ml in DMSO and DMF.

JTE-013 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JTE-013 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. JTE-013 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

JTE-013 is a sphingosine-1-phosphate receptor 2 (S1P₂) and S1P₄ antagonist (IC₅₀s = 17 and 237 nM, respectively).¹ It is selective for S1P₂ over S1P₁ and S1P₃ (IC₅₀s = >10 μ M for both).^{1,2} JTE-013 (1 and 10 μ M) reverses S1P-induced inhibition of human umbilical vein endothelial cell (HUVEC) and smooth muscle cell (SMC) migration.² It also reverses S1P-induced inhibition of B16 murine melanoma cell migration.³ In vivo, JTE-013 (30 mg/kg) reduces lung injury, endothelial dysfunction, and pulmonary edema in a rat model of cecal ligation and puncture-induced sepsis.⁴ JTE-013 also inhibits sphingolipid delta(4)desaturase (DES1; IC₅₀ = 16.8 μ M), an effect that is not rescued by the S1P2 agonist CYM5520, as well as sphingosine kinase 1 (SK1) and SK2 (IC₅₀s = 25.1 and 4.3 μ M, respectively).¹

References

- 1. Pitman, M., Lewis, A.C., Davies, L.T., et al. The sphingosine 1-phosphate receptor 2/4 antagonist JTE-013 elicits off-target effects on sphingolipid metabolism. Sci. Rep. 12(1), 454 (2022).
- 2. Osada, M., Yatomi, Y., Ohmori, T., et al. Enhancement of sphingosine 1-phosphate-induced migration of vascular endothelial cells and smooth muscle cells by an EDG-5 antagonist. Biochem. Biophys. Res. Commun. 299(3), 483-487 (2002).
- 3. Arikawa, K., Takuwa, N., Yamaguchi, H., et al. Ligand-dependent inhibition of B16 melanoma cell migration and invasion via endogenous S1P₂ G protein-coupled receptor. Requirement of inhibition of cellular rac activity. J. Biol. Chem. 278(35), 32841-32851 (2003).
- 4. Xu, Q., Chen, J., Zhu, Y., et al. JTE-013 alleviates inflammatory injury and endothelial dysfunction induced by sepsis in vivo and in vitro. J. Surg. Res. 265, 323-332 (2021).

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

uyer 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, 01/19/2022

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