

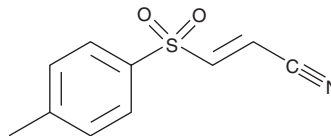
Product Information



BAY-11-7082

Catalog No. 10010266

CAS Registry No.: 19542-67-7
Formal Name: 3-[[4-(4-methylphenyl)sulfonyl]-(2E)-propenenitrile
MF: C₁₀H₉NO₂S
FW: 207.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that BAY-11-7082 be stored as supplied at -20°C. It should be stable for at least two years.

BAY-11-7082 is supplied as a crystalline solid. A stock solution may be made by dissolving the BAY-11-7082 in an organic solvent purged with an inert gas. BAY-11-7082 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of BAY-11-7082 in ethanol is approximately 0.20 mg/ml and approximately 25 mg/ml in DMSO and DMF.

BAY-11-7082 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BAY-11-7082 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. BAY-11-7082 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The transcription factor NF-κB plays a key role in regulating over 150 target genes including the expression of inflammatory cytokines, chemokines, immunoreceptors, and cell adhesion molecules.¹ In the cytoplasm, inactive NF-κB complexes are bound to an inhibitor IκB.² However in response to certain stimuli, IκB is phosphorylated, ubiquitinated, and degraded, enabling the translocation of NF-κB to the nucleus.³ BAY-11-7082 selectively and irreversibly inhibits NF-κB activation by blocking TNF-α-induced phosphorylation of IκB-α without affecting constitutive IκB-α phosphorylation.⁴ This compound inhibits the TNF-α-induced surface expression of adhesion molecules ICAM-1, VCAM-1, and E-selectin in human endothelial cells with IC₅₀ values of 5-10 μM.⁴

References

1. Pahl, H.L. Activators and target genes of Rel/NF-κB transcription factors. *Oncogene* **18**, 6853-6866 (1999).
2. Gilmore, T.D. The Rel/NF-κB signal transduction pathway: Introduction. *Oncogene* **18**, 6842-6844 (1999).
3. Karin, M. The beginning of the end: IκB kinase (IKK) and NF-κB activation. *J. Biol. Chem.* **274**(39), 27339-27342 (1999).
4. Pierce, J.W., Schoenleber, R., Jesmok, G., *et al.* Novel inhibitors of cytokine-induced IκBα phosphorylation and endothelial cell adhesion molecule expression show anti-inflammatory effects *in vivo*. *J. Biol. Chem.* **272**(34), 21096-21103 (1997).

Related Products

CAY10470 - Cat. No. 10006734 • NF-κB p50 (human recombinant) - Cat. No. 10009818 • NF-κB p50 Western Ready Control - Cat. No. 10010184 • NF-κB (human p50) Transcription Factor Assay Kit - Cat. No. 10006912 • NF-κB (human p50/p65) Combo Transcription Factor Assay Kit - Cat. No. 10011223 • NF-κB (p65) Transcription Factor Assay Kit - Cat. No. 10007889 • Phenethyl Caffaeate - Cat. No. 70750

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

MATERIAL 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 Material 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, 05/05/2010

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