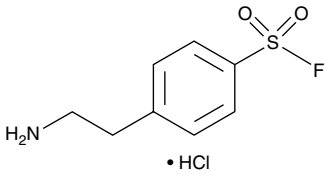
Product Information

AEBSF (hydrochloride)

Item No. 14321

CAS Registry No.: 30827-99-7
Formal Name: 4-(2-aminoethyl)-benzenesulfonyl fluoride, monohydrochloride
Synonym: Pefabloc SC
MF: $C_8H_{10}FNO_2S \bullet HCl$
FW: 239.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 224, 267, 274 nm



Laboratory Procedures

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

AEBSF (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the AEBSF (hydrochloride) in the solvent of choice. AEBSF (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of AEBSF (hydrochloride) in these solvents is approximately 10, 25, 20 mg/ml, respectively.

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 AEBSF (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of AEBSF (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

AEBSF is a water soluble, irreversible, broad spectrum inhibitor of serine proteases, including trypsin, chymotrypsin, plasmin, thrombin, and kallikreins.[1] AEBSF can also prevent the activation of the ROS generator, NADPH oxidase.[2] At 10-50 µg, AEBSF can attenuate airway inflammation in a mouse model of airway allergy.[3] AEBSF maintains stability in slightly acidic aqueous solutions and serves as a nontoxic alternative to the organophosphate inhibitors, PMSF and DFP.[1]

References

1. Powers, J.C., Asgian, J.L., Ekici, Ö.D., *et al.* Irreversible inhibitors of serine, cysteine, and threonine proteases. *Chem. Rev.* **102**, 4639-4750 (2002).
2. Diatchuk, V., Lotan, O., Koshkin, V., *et al.* Inhibition of NADPH oxidase activation by 4-(2-aminoethyl)-benzenesulfonyl fluoride and related compounds. *J. Biol. Chem.* **272(20)**, 13292-13301 (1997).
3. Saw, S., Kale, S.L., and Arora, N. Serine protease inhibitor attenuates ovalbumin induced inflammation in mouse model of allergic airway disease. *PLoS One* **7(7)**, (2012).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14321

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, 05/08/2013

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