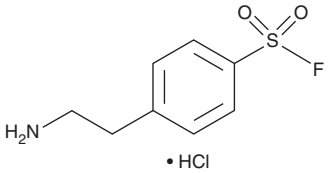
PRODUCT INFORMATION

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%
UV/Vis.:	λ_{max}: 224, 267, 274 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

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

Description

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., *et al.* Irreversible inhibitors of serine, cysteine, and threonine proteases. *Chem. Rev.* **102(12)**, 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)**, e41107 (2012).

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.

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