Specification

AEBSF Hydrochloride *BioChemica* A1421

Solubility:	50 g/L (H_2O)
Physical Description:	Solid
Product Code:	A1421
Product Name:	AEBSF Hydrochloride *BioChemica*
Specifications:	Assay (titr., calc. on dried substance): min. 98 % Assay (HPLC): min. 98 % Loss on drying: max. 1.0 %
Hazard pictograms	
WGK:	1
Storage:	2-8°C
Signal Word:	Danger
GHS Symbols:	GHS05
H Phrases:	H314
P Phrases:	P280 P305+P351+P338 P310
Molecular Formula:	$C_8H_{10}FNO_2S \cdot HCl$
M:	239.69 g/mol
CAS:	30827-99-7
CS:	29214900

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Specification

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Comment

AEBSF irreversibly inactivates thrombin and other serine proteases (e. g. chymotrypsin, kallikrein, plasmin, proteinase K, trypsin) by sulfonylation of a functional group in the active center of the enzyme (1, 2). AEBSF (LD_{50} oral, mouse 2.8 g/kg) is a substantially less toxic substitute for PMSF and DFP. It is highly water-soluble and its solutions have an acidic pH. At this pH, stability is high. AEBSF is inactivated at 37°C by 50 % after 5 hours. We recommend storage of the stock solution (e. g. 20 mM or 100 mM in water or buffer) at -20°C (stable for up to 2 months; at \+4°C approx. 1 week; ref. 6). It should be added to the assay buffers just before use at a final concentration of 0.1 - 2 mM (e. g. ref. 3-5).

Bibliography

(1)Walsmann, P. *et al.* (1972) *Acta biol. med. germ.* **28**, 577-585Inactivation of Trypsin and Thrombin through 4-Amidinobenzene sulfonyl fluoride and 4-(2-Aminoethyl)-benzene sulfonyl fluoride. (2)Markwardt, F. *et al.* (1973) *Thrombosis Res.* **2**, 343-348Synthetic low molecular weight inhibitors of serum kallikrein. (3)Murphy,. B.J. *et al.* (1993) *J. Biol. Chem.* **268**, 27355-27362Identification of the sites of selective phosphorylation and dephosphorylation of the rat brain Na^+ channel a subunit by cAMP-dependent protein kinase and phosphoprotein phosphatases. (4)Nathan, D.F. & Lindquist. S. (1995) *Mol. Cell. Biol.* **15**, 3917-3925Mutational analysis of HSP90 function\: Interactions with a steroid receptor and a protein kinase. (5)Taylor, J.A. *et al.* (1995) *Mol. Cell. Biol.* **15**, 4149-4157Activation of the high-affinity immunoglobulin E receptor FceRI in RBL-2H3 cells is inhibited by syk SH2 domains. (6)Taylor, J.A. *et al.* (1995) *Immunology* **86**, 629-635Serine protease inhibitors block the priming of monocytes for enhanced superoxide release.

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