Catalog Number: 195381, 800263

Phenylmethylsulfonyl Fluoride

Structure:

Molecular Formula: C₇H₇FO₂S

Molecular Weight: 174.2

CAS #: 329-98-6

Synonyms: PMSF; Phenylmethanesulfonyl fluoride; α -Toluenesulfonyl fluoride

Physical Appearance: White to off white needle crystals

Description: An irreversible inhibitor of serine proteases - inhibits trypsin, chymotrypsin and protease. Causes sulfonylation of the active-site serine residue. A less toxic substitute for the extremely toxic diisopropylfluorophosphate. Inhibits mammalian acetyl cholinesterase, but not those from fish sources. Recommended concentration is 15 to 175 ug/ml.

Solubility: Soluble in methanol and ethanol. Working solutions must be prepared fresh and added at several steps during sample preparation. Half-life of 1 hour at pH 7.5. Stock solutions of 200 mM or higher in anhydrous solvent are stable for at least 9 months at 4°C.

Availability:

Catalog Number	Description	Size	
195381	PMSF, purity approximately 99%	250 mg	
		1 g	
		5 g	
		25 g	
		100 g	
800263	PMSF, purity approximately 98%	5 g	

Click Here for a list of other protease inhibitors offered by MP Biomedicals and general protease inhibitor information.

References:

- 1. Fahrney, D.E. and Gold, A.M., J. Am. Chem. Soc., v. 85, 997 (1963).
- 2. Moss, D.E. and Fahrney, D.E., Biochem. Pharmacology, v. 27, 2693 (1978).
- 3. Turini, P., et al., J. Pharmacol. Exp. Ther., v. 167, 98 (1969).
- 4. James, G.T., Anal. Biochem., v. 86, 574 (1978).
- 5. Seitz, R., et al., Int. J. Cancer, v. 53, 514 (1993).