

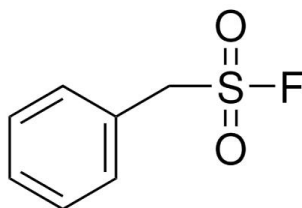
## PMSF solution(100mM)

### Product Information

Catalogue No.: E051

Size: 10ml

Storage: -20°C for 12 months(Avoid Direct Light). Store at 4°C for only one month.



CAS: 329-98-6

### Description:

#### General description

Phenylmethanesulfonyl fluoride (PMSF) is a widely used serine protease inhibitor, effective against such enzymes as chymotrypsin, thrombin, and trypsin. PMSF acts as an inhibitor via sulfonation of the hydroxyl residues of serine residues at the reactive sites of serine proteases.

PMSF is unstable in water and may have a half-life of only 35 minutes under certain conditions such as alkaline pH. It is recommended to add to lysis buffer or other aqueous solution before use.

This product is a 100mM storage solution. Usually, the final concentration of 1mM provides sufficient protease protection. It is recommended to be added to cell lysate at 1:100.

When diluted in accordance with 1:100, the product packed with 10ml can be prepared with the corresponding lysate 1L.

#### Application

PMSF is often used in lysis buffer to assist in preserving proteins of interest during protein isolation and sample preparation, by inhibiting proteases that would otherwise degrade proteins after cell or tissue lysis. PMSF is unstable in aqueous media. Thus stock solutions of PMSF are generally prepared in anhydrous organic solvents (e.g. 100% ethanol, or anhydrous isopropanol) prior to use in aqueous media.

Noted general features and benefits of PMSF include the following:

- Inhibits serine proteases such as trypsin and chymotrypsin
- Also inhibits cysteine proteases (reversible by reduced thiols) and mammalian acetylcholinesterase
- Not as effective or as toxic as DFP

- Effective concentration 0.1-1 mM
- Half-life = 1 hour. at pH 7.5

**Note:**

1. Under low temperature storage environment, PMSF is easy to precipitate into ice needles, which is normal. It should be completely dissolved and mixed before use. When used for the first time, it can be properly packaged to facilitate subsequent use.
2. PMSF is very unstable in water-based solution. This product should be careful to avoid contact with water and water vapor as much as possible, and tighten the bottle cap immediately after use.
3. In many cases, PMSF needs to be added to the lysate together with other protease inhibitors and phosphatase inhibitors.
4. This product is toxic to human body, please be careful when operating, and pay attention to effective protection to avoid direct contact with human body or inhalation.
5. This product is only used for scientific research by professionals, shall not be used for clinical diagnosis or treatment, shall not be used for food or medicine, and shall not be stored in ordinary homes.
6. For your safety and health, please wear a lab coat and disposable gloves.