

# Product Information

## Pluronic® F-127

**Catalog Number:** 59000

**Unit Size:** 1 g

### Properties

**Molecular Weight:** ~ 12500

**CAS Number:** 9003-11-6

**Color & Form:** White solid

**Solubility:** Soluble in water at 10% (w/v) or in DMSO at 20% (w/v). Heating may be necessary to achieve these concentrations.

### Storage and Handling

Store the solid and solutions at room temperature. DO NOT refrigerate or freeze solutions. Product is stable for at least 12 months from date of receipt when stored as recommended.

Pluronic® F-127 solutions may solidify into a gel during storage, especially at low temperature. This is normal and does not affect the product, but the solution must be in liquid form before use. Heat the vial to 50-65°C for 5-10 minutes and vortex periodically until it has formed a clear liquid.

### Product Description

Pluronic® F-127 is a nonionic detergent useful for solubilizing hydrophobic molecules in aqueous solutions. Pluronic® F-127 is commonly used to solubilize hydrophobic AM ester forms of fluorescent indicator dyes for calcium and other ions for loading of the dyes into cells (see References). It also can be used to solubilize other hydrophobic dyes or compounds to facilitate cell penetration.

### Assay Protocol

The following is a typical procedure for loading AM esters of ion indicators into cells using Pluronic® F-127 solution (20% in DMSO or 10% in water). Optimal conditions for cell loading may vary for different cell types or compounds.

1. Dissolve the dye or AM ester in anhydrous DMSO at 1-5 mM (or ~1000X to 500X the final desired dye concentration).
2. Immediately before use, mix equal volumes of the dye or AM ester stock solution and Pluronic® solution in a microcentrifuge tube.
3. Add the solution from step 2 to cell culture medium or buffer to achieve a final AM ester concentration of 1  $\mu$ M to 10  $\mu$ M.
4. Remove culture medium from the cells and add the medium or buffer containing diluted dye or AM ester with Pluronic® F-127.
5. Incubate cells at room temperature or 37°C for 10 minutes to 1 hour or longer.

### References

- 1) J. Membrane Biol. 19, 1 (1974).
- 2) Science 233, 886 (1986).
- 3) J. Biol Chem 262, 12801 (1987).
- 4) J. Biol. Chem. 265, 19543 (1990).
- 5) Methods Enzymol. 302, 341 (1999).
- 6) Methods Enzymol. 307, 441(1999).

### Related Products

Cat. No.	Product
90082	DMSO, Anhydrous
59004	Pluronic® F-127, 20% in DMSO
59005	Pluronic® F-127, 10% in H <sub>2</sub> O
59100	Calcium Calibration Buffer Kit
59001	A-23187, Free Acid
59006	4-Bromo A-23187, Free Acid
59007	Ionomycin, Calcium Salt
59002	EDC (EDAC)
41024-4L	Water, Ultrapure Molecular Biology Grade
22023	Paraformaldehyde, 4% in PBS, Ready-to-Use Fixative
50015	Fluo-3, AM Ester, 1 mM in Anhydrous DMSO
50018	Fluo-4, AM Ester
50034	Fura-2, AM Ester
50038	Furaptra, AM Ester
50044	Indo-1, AM Ester
50023	Rhod-2, AM Ester
50025	Rhod-590, AM Ester
50000	BAPTA, AM Ester
50005	5,5'-Difluoro BAPTA, AM Ester
50007	5,5'-Dimethyl BAPTA, AM Ester

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