

For Research Use Only

Diaminofluorescein-FM diacetate (DAF-FM DA)

Table 1. Product information

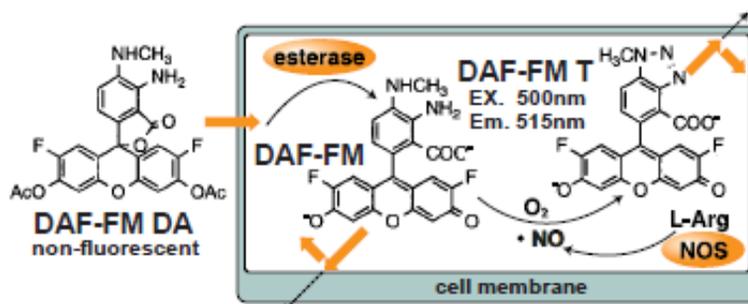
Code no.	Product	Contents	Storage	Stability
SK1004-01	Diaminofluorescein-FM diacetate (DAF-FM DA)	1 mg (in DMSO 0.4 mL)	Freeze-preservation, desiccate and protect from light.	1 year (unopened)

1. About Diaminofluorescein-FM diacetate (DAF-FM DA)

- High fluorescence intensity even at low pH (around pH 6) conditions.
- Permeable through the cell membrane and real time observation of NO inside tissues or cultured cells is available.
- Long time localization inside the cell.
- Easily observed by a fluorescence microscopy.
- Low damage to the cells because the reagent is excited by the visible light.
- High sensitivity and selectivity.

2. Principle of the measurement

After the permeation through the cell membrane, **Diaminofluorescein-FM diacetate (DAF-FM DA)** is hydrolyzed by intracellular esterase to **Diaminofluorescein-FM (DAF-FM)** which is unpermeable through the cell membrane. Amino groups of **Diaminofluorescein-FM (DAF-FM)** capture NO, and the **DAF-FM** makes fluorescence of green light with wave length of 515 nm when it's excited by the light with wavelength of 500 nm.



3. Contents

Diaminofluorescein-FM diacetate (DAF-FM DA) 1mg (in DMSO 0.4 mL)

$C_{25}H_{18}F_2N_2O_7$

Mw: 496.42

4. Preparation of Reagent

Density of the provided sample is 5 mmol/L in DMSO. Dilute 500 times with neutral buffer before use.

5. Reference

1. Kojima H, Urano Y, Kikuchi K, Higuchi T, Hirata Y, Nagano T *Angew Chem Int Ed* 1999; **38**: 3209-3212.
2. Kojima H, Hirata M, Kikuchi K, Kudo Y, Nagano T *Journal of Neurochemistry*, 2001; **76**: 1404-1410.