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Product Data Sheet

DAF-FM DA

Cat. No.: HY-D0717 CAS No.: 254109-22-3 Molecular Formula: $C_{25}H_{18}F_2N_2O_7$

Molecular Weight: 496.42

Target: Fluorescent Dye

Pathway: Others

Storage: -20°C, protect from light

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

BIOLOGICAL ACTIVITY

Description	DAF-FM DA (Diaminofluorescein-FM diacetate) is a fluorescent probe for the detection and bioimaging of nitric oxide (NO). DAF-FM DA spontaneously crosses the plasma membrane and is subsequently cleaved by esterases to generate intracellular DAF-FM ($Ex/Em=495/515 \text{ nm}$) ^[1] .
In Vitro	The BCa cells are pre-incubated with 5 µM DAF-FM DA for 30 min to load the probe. Subsequently, the cells were incubated with fresh Hank's buffer for 20 min to complete de-esterification. The DAF-FM DA probe quantifies nitric oxide (NO) levels in cells ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Using sections of zebrafish embryos live-stained with DAF-FM DA (5 μ M), could confirm that the fluorescent signals were predominantly located in areas of ongoing bone formation ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Bioact Mater. 2022 Mar 17;18:91-103.
- Chem Eng J. 2023 Dec 2, 147850.
- Redox Biol. 2023 Dec, 68, 102952.
- Biochim Biophys Acta Mol Basis Dis. 2024 Mar 8:167110.
- Acs Biomater Sci Eng. 2023 Apr 11.

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REFERENCES

- [1]. Zhi Xu, et al. RelB-activated GPX4 inhibits ferroptosis and confers tamoxifen resistance in breast cancer. Redox Biol. 2023 Dec:68:102952.
- [2]. Ann Huysseune, et al. Bone Formation in Zebrafish: The Significance of DAF-FM DA Staining for Nitric Oxide Detection. Biomolecules. 2023 Dec 12;13(12):1780.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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