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DATASHEET

H2DCFDA

Product overview

Name H2DCFDA Cat No HB8322

Biological description Cell-permeable, fluorescent dye for ROS (reactive oxygen species e.g. H₂0₂) and NO (nitric oxide)

> detection. Commonly used for detection of ROS generation and to assess oxidative stress and redox status in cells and mitochondrial preparations. Fluorescence can be monitored using a flow cytometer, fluorometer, microplate reader, or fluorescence microscope, using excitation sources and filters

suitable for fluorescein.

Dyes & stains **Biological action**

>95% **Purity**

Description Fluorescent dye for ROS and oxidative stress detection. Used to measure redox state of a cell.

Solubility & Handling

-20°C Storage instructions

Solubility overview Soluble in DMSO (100 mM), and in ethanol (10 mM)

Storage of solutions Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if

storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Shipping Conditions

Important

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

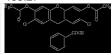
for human or veterinary use.

Chemical Data

Chemical name 2-[3,6-Bis(acetyloxy)-2,7-dichloro-9H-xanthen-9-yl]benzoic acid

Molecular Weight 485.27

Chemical structure



Molecular Formula C24H14CI2O7 CAS Number 4091-99-0 PubChem identifier 77718

SMILES CC(=O)OC1=C(C=C2C(C3=CC(=C(C=C3OC2=C1)OC(=O)C)CI)C4=CC=CC=C4C(=O)O)CI InChiKey

PXEZTIWVRVSYOK-UHFFFAOYSA-N

Excitation 485nm **Emission** 535nm

References

Detection of Total Reactive Oxygen Species in Adherent Cells by 2',7'-Dichlorodihydrofluorescein Diacetate Staining.

Kim H et al (2020) Journal of visualized experiments : JoVE

PubMedID 32658187

The involvement of TLR2 in cytokine and reactive oxygen species (ROS) production by PBMCs in response to Leishmania major phosphoglycans (PGs).

Kavoosi G et al (2009) Parasitology 136