

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com



DATASHEET

DCFDA / H₂DCFDA - Cellular ROS Assay Kit

Product overview

Name

DCFDA / H₂DCFDA - Cellular ROS Assay Kit

Cat No

HB7375

Biological description

DCFDA / H₂DCFDA is a cell permeable fluorescent probe that is redox sensitive and used to measure the concentration of reactive oxygen species (ROS) within a population of cells. DCFDA / H₂DCFDA diffuses into cells where it is hydrolysed by intracellular esterases into a non-fluorescent and non-cell permeable intermediate. Upon reaction with ROS this forms the fluorescent compound 2',7'-dichlorofluorescein (DCF) which is excited at 485nm and emits at 535nm. Pyocyanin is included within this kit as a positive control. Pyocyanin promotes the formation of ROS through inactivation of catalase and depleting reduced glutathione.

This kit contains:

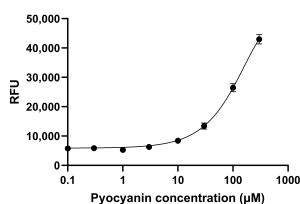
- DCFDA / H₂DCFDA assay reagent
- DMSO
- Lyophilised Pyocyanin
- 10x assay buffer

Applications**Description**

Cell Culture, FACS and flow cytometry, ICC

Kit for measurement of reactive oxygen species (ROS) within cells.

Images



Biological Data

Application notes

Please follow [this link](#) to a full DCFDA / H₂DCFDA - Cellular ROS Assay Kit protocol

Solubility & Handling

Storage instructions

-20°C

Important

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

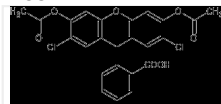
Chemical Data

Chemical name

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

Molecular Weight
Chemical structure

485.27



Molecular Formula
CAS Number
PubChem identifier
SMILES
InChiKey

C₂₄H₁₄Cl₂O₇

4091-99-0

77718

CC(=O)OC1=C(C=C2C(C3=CC(=C(C=C3OC2=C1)OC(=O)C)Cl)C4=CC=CC=C4C(=O)O)Cl

PXEZTIWVRVSYOK-UHFFFAOYSA-N

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

PubMedID

[19631014](#)
