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DATASHEET

Oxazole Yellow Iodide 1mM solution (in 1mL DMSO)

Product overview

Name Oxazole Yellow Iodide 1mM solution (in 1mL DMSO)

Cat No HB775

Alternative names Yo-Pro-1, YP1, YP-1

Biological description Overview

Oxazole Yellow iodide is also known as Yo-Pro-1 or YP1. 1mM solution (in 1mL DMSO). It is a carbocyanine nucleic acid stain which has a strong binding affinity to nucleic acids.

It is a green fluorescent DNA marker which is commonly used to identify apoptotic cells.

Uses and applications

Oxazole Yellow (YP1) does not penetrate the plasma membrane of viable cells. However, during apoptosis, apoptotic processes cause the cell-membrane to become slightly permeable. This allows Oxazole Yellow (YP1) to enter these cells and bind to nucleic acids to allow detection of apoptotic cells.

It is frequently used with propidium iodide when staining for apoptotic and necrotic cells as apoptotic cells remain impermeant to propidium iodide but permeable to Oxazole Yellow (YP1).

Dyes & stains

Oxazole Yellow iodide is also known as Yo-Pro-1. It is a commonly used apoptosis marker. 1mM

solution (in 1mL DMSO)

Biological action

Description

Application notes

Biological Data

Oxazole yellow is a cyanine dye with strong affinity for nucleic acids used to stain apoptotic cells. Oxazole yellow from Hello Bio has an excitation peak at 491nm (when recorded at 507nm) and peak emission at 505nm (when excited at 490nm). For protocol see #Protocol 1 in application notes below.

Solubility & Handling

Storage instructions -20 °C (protect from light)
Solubility overview DMSO solution

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.

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

Shipping Conditions

Important

Chemical name Molecular Weight 4-[(3-Methyl-2(3H)-benzoxazolylidene)methyl]-1-[3-(trimethylammonio)propyl]-quinolinium diiodide 629.32

Source Synthetic

InChiKey ULHRKLSNHXXJLO-UHFFFAOYSA-L

Appearance Yellow Solution

References

Evaluation of YO-PRO-1 as an early marker of apoptosis following radiofrequency ablation of colon cancer liver metastases

Fujisawa S *et al* (2014) Cytotechnology 66(2) **PubMedID** 24065619

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Rapid quantification of cell viability and apoptosis in B-cell lymphoma cultures using cyanine SYTO probes

Wlodkowic D *et al* (2011) Methods Mol Biol 740 **PubMedID** 21468970

Application of the novel nucleic acid dyes YOYO-1, YO-PRO-1, and PicoGreen for flow cytometric analysis of marine prokaryotes

Marie D *et al* (1996) Appl Environ Microbiol 62(5) **PubMedID** 8633863