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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 HB7753

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

Biological description <u>Overview</u>

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 Data**

**Biological action** 

Description

Application notes

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 Solubility overview

**Important** 

-20°C (protect from light)

DMSO solution

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
Molecular Weight
Molecular Formula
CAS Number
PubChem identifier

4-[(3-Methyl-2(3H)-benzoxazolylidene)methyl]-1-[3-(trimethylammonio)propyl]-quinolinium diiodide

629.32 C<sub>24</sub>H<sub>29</sub>I<sub>2</sub>N<sub>3</sub>O 152068-09-2 6439500 SMILES Source InChiKey Appearance  $CN\ 1C2 = CC = CC = C2O/C1 = C\ C3 = CC = [N+](C4 = CC = CC = C34)CCC[N+](C)(C)C.[I-].[I-]$ 

Synthetic

ULHRKLSNHXXJLO-UHFFFAOYSA-L

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