

Product Data Sheet

Product Name: TO-PRO 1
Cat. No.: GC64792

Chemical Properties

Cas. No. 157199-59-2

Formula C₂₄H₂₉I₂N₃S M.Wt 645.38

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Protocol

1. 1000g 3-5min

1. 1000g: 1000g HHBS PBS 5 mM TO-PRO 1 1-5μM

1:

① -20°C -80°C

②

③

④

2. 6

2.1

1 1000g 3-5min PBS 5

2 PBS 1000g 3-5min

3 1mL 37 °C TO-PRO 1 37 °C 15-60min

4 1000g 5 PBS 2-3

5

2.2

1

2

3 100μL 37 °C 15-60min

Caution: Product has not been fully validated for medical applications. For research use only.

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4. TO-PRO 1 2~3
3. TO-PRO 1 515/531 nm

TO-PRO 1

1. TO-PRO 1

2. TO-PRO 1

References:

[1]. Elena Gorokhova, Lisa Mattsson, Annica M Sundström. A comparison of TO-PRO-1 iodide and 5-CFDA-AM staining methods for assessing viability of planktonic algae with epifluorescence microscopy. 2012 Jun;89(3):216-21. doi: 10.1016/j.mimet.2012.03.005. Epub 2012 Mar 14.

Background

TO-PRO 1 is a monomeric cyanine dye with a single cationic side chain and low base selectivity that is able to enter cells with damaged membranes and bind to nucleic acids, producing bright green fluorescence. In addition, TO-PRO 1 shows excellent staining results for diatoms that are challenging to stain. TO-PRO 1 is almost non-fluorescent when not bound to nucleic acids, but shows strong fluorescence when bound to nucleic acids, with a maximum excitation/emission light of 515/531 nm[1].

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