

New

LIFE SCIENCE



Cell Cycle Analysis Kit without Cell Pre-Fixation

Cell Cycle Assay Kit (Red)

1 kit [C3851]

Cell Cycle Assay Kit (Red) is a kit that allows the observation of cell cycle by staining cells with the enclosed DNA binding dye 7-AAD ($\lambda_{\text{ex, max}} = 549 \text{ nm}$, $\lambda_{\text{em, max}} = 648 \text{ nm}$) and the measurement of cell cycle by FACS.

Advantages

- Enables significant separation of cells in the G₀/G₁, S, and G₂/M regions even without cell pre-fixation
- Realizes the process from reagent addition to measurement in as little as 15 minutes
- Compatible with many FACS due to the use of 7-AAD as a staining dye

Kit Components

- 7-AAD for 100 assays
- Cell staining buffer for 100 assays

Chemical Required Outside of the Kit

- DMSO

Application Example: Cell cycle observation of HeLa cells

1. Dissolve the included 7-AAD in 100 μL of DMSO (not included).
2. Combine 1 μL of the 7-AAD solution from step 1 with 200 μL of the included cell staining buffer.
3. Trypsinize HeLa cells and wash once with PBS.
4. Collect 5.0×10^4 cells in a tube. After centrifuging and aspirating the supernatant, add the solution from step 2, and incubate for 15 minutes.
5. Perform cell cycle analysis on a flow cytometer (\dagger).

\dagger Laser wavelength = 488 nm,
Filter wavelength/bandwidth = 700 nm/54 nm

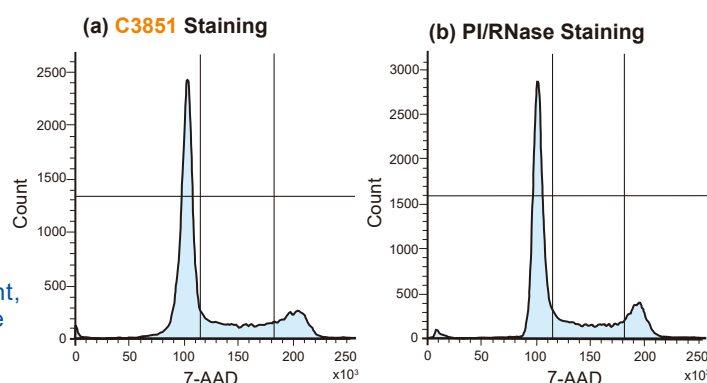


Figure. HeLa cells stained, and analyzed on a flow cytometer.
(a) Cells stained with C3851.
(b) Cells stained using the traditional ethanol fixation and PI/RNase method.
Both methods were able to cleanly resolve the G₀/G₁, S, and G₂/M peaks.

Related Products

Nocodazole
Thymidine
DMSO

25mg / 100mg [N1138]
1g / 5g / 25g [T0233]
25g / 500g [D0798]

Reference M. Carbonari, *Cytom. A* 2016, 89, 498. <https://doi.org/10.1002/cyto.a.22823>

Ordering and Customer Service

TCI AMERICA

Tel : 800-423-8616 / 503-283-1681
Fax : 888-520-1075 / 503-283-1987
E-mail : Sales-US@TCIchemicals.com

TCI EUROPE N.V.

Tel : +32 (0)3 735 07 00
Fax : +32 (0)3 735 07 01
E-mail : Sales-EU@TCIchemicals.com

TCI Deutschland GmbH

Tel : +49 (0)6196 64053-00
Fax : +49 (0)6196 64053-01
E-mail : Sales-DE@TCIchemicals.com

Tokyo Chemical Industry UK Ltd.

Tel : +44 (0)1865 78 45 60
E-mail : Sales-UK@TCIchemicals.com

梯希爱(上海)化成工业发展有限公司

Tel : 800-988-0390 / 021-67121386
Fax : 021-6712-1385
E-mail : Sales-CN@TCIchemicals.com

Tokyo Chemical Industry (India) Pvt. Ltd.

Tel : 1800 425 7889 / 044-2262 0909
E-mail : Sales-IN@TCIchemicals.com

TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878
E-mail : globalbusiness@TCIchemicals.com

• Chemicals itemized in this brochure are for research and testing use only. Please avoid use other than by chemically knowledgeable professionals. • Information such as listed products and its specifications and so on are subject to change without prior notice. • The contents may not be reproduced or duplicated in whole or in part without permission of Tokyo Chemical Industry Co., Ltd.