Version 1 Last updated 25 May 2018

ab228563
7-AAD Staining Solution

For the exclusion of non-viable cells in flow cytometry

This product is for research use only and is not intended for diagnostic use.

Table of Contents

1. Overview

7-Amino-Actinomycin D (7-AAD) is ready-to-use nucleic acid dye solution (2 ml). 7-AAD can be used in place of propidium iodide (PI) for the exclusion of non-viable cells in flow cytometry analysis. This product can be used in combination with PE (phycoerythrin), and FITC (Fluorescein isothiocyanate) conjugated antibodies in 2-color analysis. The advantage of 7-AAD over PI is the minimal spectral overlap between these emissions. Fluorescence is detected in the far-red range of the spectrum (650 nm long-pass filter).

Harvest cells by centrifugation at 300 x g for 5 minutes.

Remove supernatant

Wash cells in 2 ml PBS/BSA and centrifuge at 300 x g for 5 minutes

Resuspend in 100 µL PBS

Add 5 µL 7-AAD to cells. Mix well and incubate 5 minutes at room temperature

Add 300 µL PBS

Analyze by flow cytometry

2. Materials Supplied and Storage

Store 7-AAD at 4°C in the dark immediately on receipt.

3. Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully perform this assay:

- Centrifuge for harvesting/washing cells.
- Flow cytometer capable of measuring fluorescence at Ex/Em = 540/645 nm.

4. General guidelines, precautions, and troubleshooting

Please observe safe laboratory practice and consult the safety datasheet.

For general guidelines, precautions, limitations on the use of our assay kits and general assay troubleshooting tips, particularly for first time users, please consult our guide:
www.abcam.com/assaykitguidelines

ΔNote: This product contains sodium azide. In acid conditions, it is transformed into hydrazoic acid, a highly toxic compound. Azide compounds must be diluted in running water before being discarded. These conditions are recommended so as to avoid deposits in plumbing, where explosive conditions could develop.

5. Reagent Preparation

5.1 7-AAD

Ready to use as supplied.

Sufficient reagent is provided for 400 tests (at 5 µL/test).

6. Assay Procedure

All cell staining procedures should be performed under sterile conditions, such as in a laminar flow hood.

6.1 Harvest cells (corresponding to 2 x 10^5 to 1 x 10^6 cells). Centrifuge the cells at 300 x g for 5 minutes and remove the supernatant. Resuspend the pellet in the residual liquid.

6.2 Wash cells once in 2 mL PBS containing 2% BSA. Centrifuge the cells at 300 x g for 5 minutes and remove the supernatant. Resuspend the pellet in 100 µL PBS.

6.3 Add 5 µL of 7-AAD to the resuspended cell pellet and mix well. Incubate at room temperature for 5 minutes before analysis.

6.4 After the 5-minute incubation period, add 300 µL PBS. Analyze by flow cytometry. Excitation = 540 nm / emission = 645 nm.

ΔNote: Before acquiring samples, adjust the discriminator (threshold) to minimize debris.
Fluorescence is detected in the far red range of the spectrum (650 nm long-pass filter).

7. Notes

Technical Support

Austria
wissenschaftlicherdienst@abcam.com | 019-288-259
France
supportscientifique@abcam.com | 01.46.94.62.96
Germany
wissenschaftlicherdienst@abcam.com | 030-896-779-154
Spain
soportecientifico@abcam.com | 91-114-65-60

Switzerland
technical@abcam.com
Deutsch: 043-501-64-24 | Français: 061-500-05-30
UK, EU and ROW
technical@abcam.com | +44(0)1223-696000

Canada
ca.technical@abcam.com | 877-749-8807
US and Latin America
us.technical@abcam.com | 888-772-2226

Asia Pacific
hk.technical@abcam.com | (852) 2603-6823
China
cn.technical@abcam.com | 400 921 0189 / +86 21 2070 0500
Japan
technical@abcam.co.jp | +81-(0)3-6231-0940
Singapore
sg.technical@abcam.com | 800 188-5244

Australia
au.technical@abcam.com | +61-(0)3-8652-1450
New Zealand
nz.technical@abc.com | +64-(0)9-909-7829