Technical Data Sheet

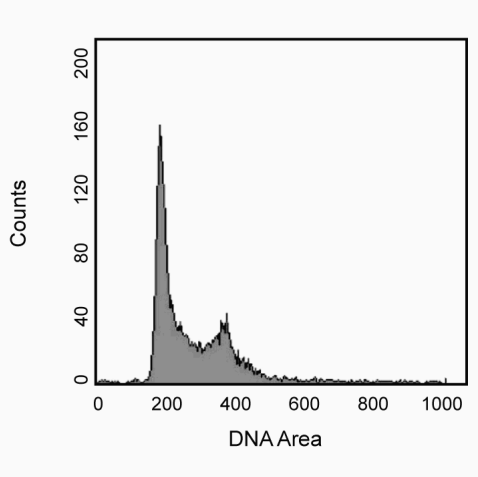
PI/RNase Staining Buffer

Product Information

Material Number: **550825**
Size: 100 mL
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Propidium Iodide (PI) is a fluorescent vital dye that stains DNA and RNA. PI binds to both DNA and RNA, so the latter must be removed by digestion with ribonucleases. The content of DNA as determined by flow cytometry, and can reveal useful information about the cell cycle and the proteins involved in cell cycle regulation. Cells in G2 and M phases of the cell cycle have double the DNA content of those in G0 and G1 phases. Cells in S phase have DNA content lying between these extremes. PI is detected in the orange range of the spectrum using a 562-588 nm band pass filter. This reagent may be used to analyze cell cycle by flow cytometry in addition to use with antibodies for examining the expression of proteins during the cell cycle.



Flow cytometric analysis of DNA content of Jurkat cells. *Cells from Jurkat cell line (Human T-cell leukemia; ATCC TIB-152) were fixed with 1% paraformaldehyde (methanol free) and stored in 70% ethanol at -20°C. Cells were stained with 0.5 ml of PI/RNase Staining Buffer (Cat. No. 550825) for 15 minutes at room temperature and analyzed by flow cytometry.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
Do not dilute or boil.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

Flow cytometry: After fixing and permeabilizing your cell sample, use 0.5 mL /test (1 x 10e6 cells) and incubate for 15 minutes at room temperature before analysis. Please refer to http://static.bdbiosciences.com/documents/BD_FlowCytometry_DNA_Staining_Protocol.pdf for more protocol information.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
554655	Fixation Buffer	100 mL	(none)
558052	Perm Buffer II	125 mL	(none)
558050	Perm Buffer III	125 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

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Product Notices

1. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
2. Avoid contact with skin and eyes.
3. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
4. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

Douglas RS, Tarshis AD, Pletcher CH Jr, Nowell PC, Moore JS. A simplified method for the coordinate examination of apoptosis and surface phenotype of murine lymphocytes. *J Immunol Methods.* 1995; 188(2):219-228. (Biology)

Kalejta RF, Shenk T, Beavis AJ. Use of a membrane-localized green fluorescent protein allows simultaneous identification of transfected cells and cell cycle analysis by flow cytometry. *Cytometry.* 1997; 29(4):286-291. (Biology)