

Technical Data Sheet

Purified Mouse Anti- BrdU

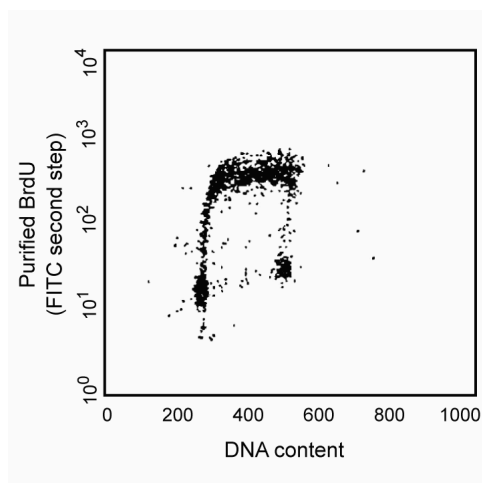
Product Information

Material Number:	555627
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	3D4
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

Bromodeoxyuridine (BrdU) is an analog of thymidine that can be incorporated into newly synthesized DNA by cells entering and progressing thru the DNA synthesis (S) phase of the cell cycle. The amount of BrdU that gets incorporated is dependent upon the amount of time that the cells are exposed to BrdU (pulse time), the rate of cell division, and whether the cells are in early, mid, or late S phase. Detection of incorporated BrdU allows the investigator to identify cycling cells in an asynchronous cell population and to determine cell cycle kinetics.

The 3D4 monoclonal antibody reacts with BrdU, but not other nucleotides, in single-stranded DNA. Random cleavage (nicking) of cellular DNA with DNase I permits the binding of the antibody to incorporated BrdU.



Fluorescence Intensity (Linear) Profile of KG1A cells analyzed on a FACScan (BDIS, San Jose, CA)

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Fluorescence microscopy	Tested During Development

Recommended Assay Procedure:

This product is NOT recommended to use with BrdU flow kits, e.g. cat#559619. The histograms are an example of the expected reactivity. Note: this product is routinely tested on fixed and permeabilized KG1A cell line with 70-80% cold ethanol. Please see the detail protocol at http://www.bdbiosciences.com/pharmingen/protocols/BrdU_Incorporation.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
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555746	Purified Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. 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.

References

Keren DF, Hanson CA, Hurtubise PE, ed. *Flow Cytometry and Clinical Diagnosis*. Chicago: American Society of Clinical Pathologists Press; 1994:1-676.(Biology)
Dolbeare F, Gratzner H, Pallavicini MG, Gray JW. Flow cytometric measurement of total DNA content and incorporated bromodeoxyuridine. *Proc Natl Acad Sci U S A*. 1983; 80(18):5573-5577.(Biology)