



## BrdU (IIB5)

**CATALOG NUMBER:** MUB0200S

**CLONE:** IIB5

**SPECIES / ISOTYPE:** mouse IgG1

**PRODUCT FORM:** purified monoclonal antibody

### BACKGROUND

The immunocytochemical detection of bromodeoxyuridine (BrdU) incorporated into DNA is a powerful tool to study the cytokinetics of normal and neoplastic cells. *In vitro* or *in vivo* labeling of tumor cells with the thymidine analogue BrdU and the subsequent detection of incorporated BrdU with specific anti-BrdU monoclonal antibodies is an accurate and comprehensive method to quantitate the degree of DNA-synthesis. BrdU is incorporated into the newly synthesized DNA of the S-phase cells and can thus provide an estimate for the fraction of cells in S-phase. Also dynamic proliferative information (such as the S-phase transit rate and the potential doubling time) can be obtained, by means of bivariate BrdU/DNA flow cytometric analysis.

### SOURCE

IIB5 is a mouse monoclonal IgG1 antibody derived by fusion of SP2/0-Ag14 mouse myeloma cells with spleen cells from a BALB/c mouse intraperitoneally immunized with BrdU conjugated to bovine serum albumin.

### PRODUCT

Each vial contains 1 ml of culture supernatant of monoclonal antibody in PBS containing 0.09% sodium azide.

### SPECIFICITY

IIB5 reacts with bromodeoxyuridine also when incorporated into nuclear DNA.

IIB5 is suitable for flow cytometry and immunohistochemistry on frozen and paraffin-embedded tissues. Optimal antibody dilution should be determined by titration; recommended range is 1:100 – 1:200 for flow cytometry, and for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent.

### STORAGE

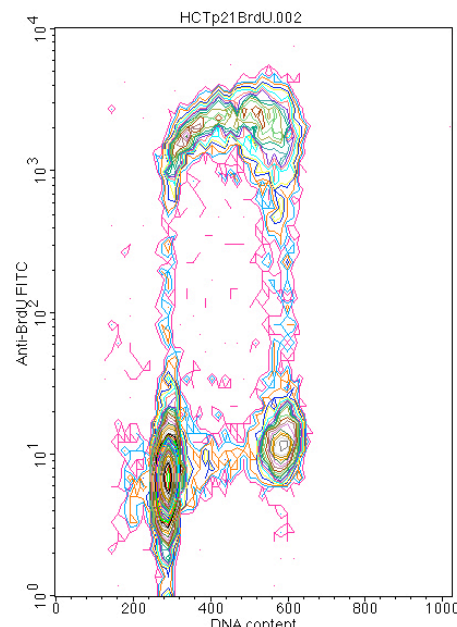
Store at 4°C, or in small aliquots at -20°C.

### REFERENCES

1. Schutte, B., Reynders, M. M., van Assche, C. L., Hupperets, P. S., Bosman, F. T., and Blijham, G. H. (1987). An improved method for

the immunocytochemical detection of bromodeoxyuridine labeled nuclei using flow cytometry, *Cytometry* 8, 372-6.

2. Tinnemans, M. M., Schutte, B., Lenders, M. H., Ten Velde, G. P., Ramaekers, F. C., and Blijham, G. H. (1993). Cytokinetic analysis of lung cancer by *in vivo* bromodeoxyuridine labelling, *Br J Cancer* 67, 1217-22.
3. Schutte, B., Tinnemans M.M.F.J., Pijpers, G.F.P., Lenders, M.J.H. and Ramaekers, F. (1995). Three parameter flow cytometric analysis for simultaneous detection of cytokeratin, proliferation associated antigens and DNA content. *Cytometry* 21, 177-86.
4. van Engeland, M., Kuijpers, H. J., Ramaekers, F. C., Reutelingsperger, C. P., and Schutte, B. (1997). Plasma membrane alterations and cytoskeletal changes in apoptosis. *Exp Cell Res* 235, 421-430.
5. Schutte, B., Nieland, L., van Engeland, M., Henfling, M. E., Meijer, L., and Ramaekers, F. C. (1997). The effect of the cyclin-dependent kinase inhibitor olomoucine on cell cycle kinetics. *Exp Cell Res* 236, 4-15.



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### WARNING and CAUTION

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals.

This product contains sodium azide. To prevent formation of toxic vapors, do not mix with strong acidic solutions. To prevent formation of potentially explosive metallic azides in metal plumbing, always wash into drain with copious quantities of water.

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