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BrdU, Bromo-deoxy-Uridine, clone IIB5 Monoclonal Antibody

Catalog No.: MON 8003

Quantity: 1 ml

Specificity
BrdU is a thymidine analogue and when offered to proliferating cells it is incroporated into reduplicating cells. The antibody is specific for DNA in which BrdU has been incorporated.
Immunogen: BrdU coupled to BSA. In immunoassays this antibody reacts strongly with free or carrier-protein coupled BrdU but not with other nucleosides. In immuncytochemistry the antibody only recognizes BrdU in denaturated (single stranded) DNA. The BrdU antibody is 100% crossreactive with Jodo-Deoxy-Uridine (IrdU). Therfore, IdU instead of BrdU can be used in studies.

Immunoglobulin type
Murine IgG_1

Use
Pulse labeling of dividing cells will allow the immunocytochemical identification of S-phase cells. BrdU incorporating can be analyzed in vitro cell cultures by adding BrdU to the tissue culture medium (10μM final conc.). Exposure periods as brief as 10 min. allow sufficient BrdU Incorporation for reliable analysis. For *in vivo* applications, parenteral administrations of dosage of 5mg/kg appears to be effective. BrdU disappears from the circulation in 30 min.
Ex vivo labeling can also be achieved by brief culturing of small viable tissue specimens, immediately after removal, in medium containing 10μM BrdU. In this context the anti BrdU antibody IIB5 can be used for:
1 Radioimmunochemical determination of circulating BrdU levels after parenteral administration.
2 Detection of S-phase cells in cell suspensions by immunofluorescence microscopy.
3 Detection of S-phase cell in tissue sections by immunoperoxidase or immunofluorescence methods alone or in double immunocytochemical staining approaches.
4 Determination of the percentage of proliferating cells by flow cytometrical analysis.
5 Quantitative evalutation of the number of cells in the various phases of the cell cycle (G_1,S,G_2,-M) by dual parameter flow-cytomertical analysis.

Instructions for use
The antibody can be used on frozen sections, on paraffin embedded tissue after proteolytic enzyme treatment and on cells in suspension. Dilute antibody in 0.15 M phosphate buffered saline with 1% BSA and 1% Na-azide. Advised working dilution: 1:5 - 1:10. Optimal dilution should be tested by serial dilution. Recommended for positive control: Bromodeoxyuridine labeled cells.

Presentation
1 ml diluted ascites. Sufficient for 100 tests.

Literature

- Schutte, B., et al., 1987, J. of Histochemistry and Cytochemistry *35*, 371-374.
- Schutte, B., et al., 1987, J. of Histochemistry and Cytochemistry *35*, 1343-1345.
- Schutte, B., et al., 1987, Cytometry *8*, 372-376.

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