BACKGROUND

The halogenated pyrimidine thymidine analog bromodeoxyuridine (BrdU) is incorporated into newly synthesized DNA strands of S phase cells and is useful for estimating the fraction of cells in S phase. Additionally, the analysis of the uptake of BrdU is a reliable method to quantitate the degree of DNA synthesis. BrdU is also useful for studying sister chromatid exchange and to isolate nascent DNA. UV-induced excision-repair synthesis is one method for incorporating BrdU into cellular DNA. Anti-BrdU antibodies bind to the exposed BrdU in single-stranded DNA after a hydrochloric acid denaturation step or nuclease digestion. Protease antigen recovery is necessary for most tissues or cells fixed with cross-linking agents such as formalin but may decrease the specificity of BrdU immunodetection. The monoclonal antibody Bu20a against BrdU stains BrdU incorporated into the nuclei of a wide range of proliferating cell types including human tumors growing in nude mice and tonsil lymphoid.

REFERENCES


SOURCE

BrdU (IIB5) is a mouse monoclonal antibody raised against Bromodeoxyuridine (BrdU) conjugated to BSA.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BrdU (IIB5) is available conjugated to agarose (sc-32323 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to either phycoerythrin (sc-32323 PE), fluorescein (sc-32323 FITC), Alexa Fluor® 488 (sc-32323 AF488) or Alexa Fluor® 647 (sc-32323 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

BrdU (IIB5) is recommended for detection of BrdU, a proliferation marker incorporated into newly synthesized DNA during S-phase of a cell cycle, by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells); recognizes BrdU in denatured DNA of cells labeled with BrdU; may cross-react with iododeoxyuridine (idUd).


STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures.