



BrdU (B33.1): sc-56256

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

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RESEARCH USE

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

SOURCE

BrdU (B33.1) is a mouse monoclonal antibody raised against 5-bromodeoxyuridine conjugated with hemocyanine.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BrdU (B33.1) is recommended for detection of BrdU in single stranded DNA, free BrdU or BrdU coupled to protein carrier of nsr origin by immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:500) and flow cytometry [1 µg (approximately 1-2 µl) per 1 x 10⁶ cells].

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.