

**BrdU [5-Bromo-2'-deoxyuridine] *CAS
59-14-3***

 Catalog number: 17030
 Unit size: 25 mg

Component	Storage	Amount
BrdU [5-Bromo-2'-deoxyuridine]	Freeze (<-15 °C), Minimize light exposure	25 mg

OVERVIEW

5-Bromo-2-deoxyuridine (BrdU) is an analog of thymidine, and can be incorporated into the newly synthesized DNA of replicating cells (S-phase cells). BrdU is commonly used in the detection of proliferating cells in living tissues. It works by substituting for thymidine during DNA replication and incorporating itself into the newly synthesized DNA (during S-phase). Antibodies specific for BrdU can then be used to detect the incorporated chemical, thus indicating cells that were actively replicating their DNA. Because BrdU can replace thymidine during the S phase of cell division, it can cause mutations.

PREPARATION OF STOCK SOLUTIONS

Unless otherwise noted, all unused stock solutions should be divided into single-use aliquots and stored at -20 °C after preparation. Avoid repeated freeze-thaw cycles.

BrdU DMSO stock solution:

Make 1 - 10 mM DMSO stock solution by dissolving the BrdU in DMSO.

Note The DMSO stock solution is good for 6 months if stored at -20 °C.

PREPARATION OF WORKING SOLUTION
BrdU working solution:

Make 5-20 μM working solution in buffer of your choice.

Note BrdU working solution should be used promptly and be made fresh every time.

SAMPLE EXPERIMENTAL PROTOCOL

1. Pellet cells by centrifugation and resuspend the cells in completed growth media. Adherent cells in culture may be stained *in situ* on cover slips or in the cell culture wells.

2. Add BrdU working solution and incubate it for 60 minutes to overnight as a guide.

Note The optimum incubation time will depend upon cell type and goal of the experiment.

3. Fix cells with 70 - 80% alcohol or acid-ethanol for 20 - 30 minutes.

4. Wash with PBS (3 times, 2 min. each).

5. Proceed with immunocytochemical staining techniques.

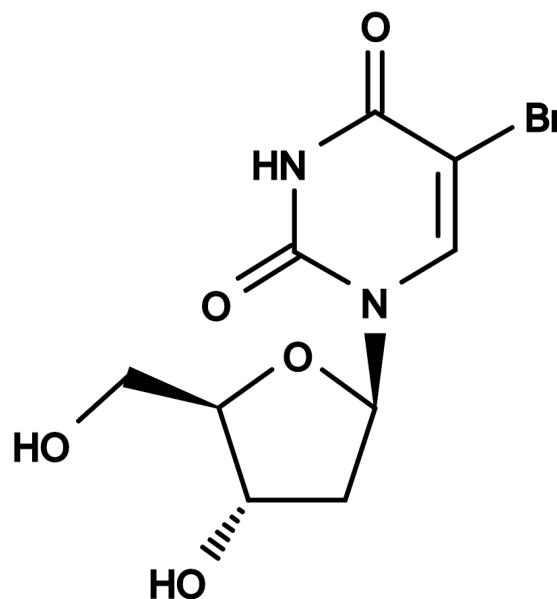
EXAMPLE DATA ANALYSIS AND FIGURES


Figure 1. Chemical structure for BrdU [5-Bromo-2'-deoxyuridine] *CAS 59-14-3*

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