

Monoclonal Antibody to Bromodeoxyuridine / BrdU - FITC

Catalog No.: SM1667FS

Quantity: 0.1 mg

Concentration: 0.5 mg/ml

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 S-phase cells may 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.

Host / Isotype: Rat / IgG2a

Clone: BU1/75 (ICR1)

Format: **State:** Liquid purified IgG fraction
Purification: Affinity Chromatography on Protein G
Buffer System: PBS
Preservatives: 0.09% Sodium Azide
Stabilizers: 50% Glycerol
Label: FITC

Applications: **Immunocytochemistry:** 1/50-1/250.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Reacts with BrdU in single stranded DNA, BrdU attached to a protein carrier or free BrdU. The antibody detects nucleated cells in S-phase which have had BrdU incorporated into their DNA. It also reacts with chlorodeoxyuridine but with reduced staining. The antibody does not cross react with Thymidine.

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings: 1. Perez-Ruiz A et al. {beta}-catenin promotes self-renewal of skeletal-muscle satellite cells. J Cell Sci : (2008).
2. Iulianella A, Sharma M, Durnin M, Vanden Heuvel GB, Trainor PA. Cux2 (Cutl2) integrates neural progenitor development with cell-cycle progression during spinal cord neurogenesis. Development. 2008 Feb;135(4):729-41. doi: 10.1242/dev.013276. PubMed

