Bromodeoxyuridine (BrdU) Ab-3 (Clone BRD.3)

Mouse Monoclonal Antibody

Cat. #MS-1058-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200μg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-1058-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #MS-1058-B0, -B1, or -B (0.1ml , 0.5ml, or 1.0ml at 200μg/ml) (Biotin-labeled Ab with BSA and Azide)
Cat. #MS-1058-R7 (7.0ml) (Ready-to-Use for Immunohistochemistry)
Cat. #MS-1058-PCS (5 Slides) (Positive Control for Histology)

Please note this data sheet has been changed effective December 9, 2011

Description: BrdU is a thymidine analog, incorporated into cell nuclei during DNA synthesis prior to mitosis. Antibody to BrdU is helpful in detecting S-phase cells, providing useful information on the aggressiveness of tumors.

Comments: Ab-3 reacts with Bromodeoxyuridine (BrdU) in single stranded DNA (produced by partial denaturation of double stranded DNA), BrdU coupled to a protein carrier, as well as free BrdU.

Species Reactivity: All species

Clone Designation: BRD.3

Ig Isotype: IgG_1

Immunogen:
Bromodeoxyuridine (BrdU) conjugated to BSA.

Applications and Suggested Dilutions:

- Flow Cytometry
- Immunofluorescence
- Immunohistology (Formalin/paraffin)
  (Use Ab at 1:500 for 20 minutes at RT using the LP Detection System)
  [For staining of formalin-fixed tissues, incubate sections in 4N HCl for 30 minutes at RT followed by digestion with trypsin at 1mg/ml PBS, 10 min at 37°C (Cat. #AP-9008)]

The optimal dilution for a specific application should be determined by the investigator.

- ***Staining tips:*** If the staining is too light, use lower dilution or longer time.
  If the staining is too strong, use higher dilution or shorter time.

Positive Control:
Cultured cells grown in presence of BrdU or tissues from experimental animals injected with BrdU.

Cellular Localization: Nuclear

Storage and Stability:
Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Supplied As:
200μg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml, or Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

Suggested References:

1. Bicknell S; et al. Am J Resp Cell Molr Biol, 1994, 10(1):16-23.
2. Jones HB; et al. J Hist Cyto, 1994, 42(4):543-9.
3. Lloveras B; et al. Am J Clin Path, 1994, 101(6):703-7.

Limitations and Warranty:
Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Lab Vision is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:
This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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Additional Suggested References:

1. Williamson K; Gilliland R; Weir H; Grimes J; Hamilton P; Anderson N; Crockard A; Rowlands B. Hydrochloric acid denaturation of colorectal tumour tissue infiltrated with bromodeoxyuridine. Cytometry, 1994, 15(2):162-8.
2. Wilson MS; Schofield PF. Correlation of PCNA with bromodeoxyuridine [letter]. Gut, 1994, 35(5):717-8.
3. Yamamura S; Okadome K; Onohara T; Komori K; Sugimachi K. Blood flow and kinetics of smooth muscle cell proliferation in canine autogenous vein grafts: in vivo BrdU incorporation. Journal of Surgical Research, 1994, 56(2):155-61.
4. Danova M; Pellicciari C; Zibera C; Mangiarotti R; Gibelli N; Giordano M; Wang E; Mazzini G; Riccardi A. Cell cycle kinetic effects of tamoxifen on human breast cancer cells. Flow cytometric analyses of DNA content, BrdU labeling, Ki-67, PCNA, and statin expression. Annals of the New York Academy of Sciences, 1993, 698:174-81.
5. Going JJ; Stanton PD; Cooke TG. Influences on measurement of cellular proliferation by histology and flow cytometry in mammary carcinomas labeled in vivo with bromodeoxyuridine. American Journal of Clinical Pathology, 1993, 100(3):218-22.
6. Hirano T; Zitsch RP 3d; Gluckman JL. Cell kinetics study of upper aerodigestive tract squamous cell carcinoma using bromodeoxyuridine. Annals of Otology, Rhinology and Laryngology,1993,102:42-6.
7. Jones HB; Clarke NA; Barrass NC. Phenobarbital-induced hepatocellular proliferation: anti-bromodeoxyuridine and anti-proliferating cell nuclear antigen immunocytochemistry. Journal of Histochemistry and Cytochemistry, 1993, 41:21-7.
8. Meyer JS; Koehm SL; Hughes JM; Higa E; Wittliff JL; Lagos JA; Manes JL. Bromodeoxyuridine labeling for S-phase measurement in breast carcinoma. Cancer, 1993, 71(11):3531-40.
9. Miwa H; Wada R; Abe H; Ohkura R; Yang SW; Watanabe H; Ogihara T; Hamada T; Sato N. Diagnosis of gastric adenoma versus early gastric cancer by bromodeoxyuridine immunohistochemistry from gastric biopsy specimen. Journal of Gastroenterology and Hepatology, 1993, 8(2):133-7.
10. Mollgard K; Schumacher U. Immunohistochemical assessment of cellular proliferation in the developing human CNS using formalin-fixed paraffin-embedded material. Journal of Neuroscience Methods, 1993, 46(3):191-6.
11. Mourad WA; Connelly JH; Sembera DL; Atkinson EN; Bruner JM. The correlation of two argyrophilic nucleolar organizer region counting methods with bromodeoxyuridine-labeling index: a study of metastatic tumors of the brain [see comments]. Human Pathology, 1993, 24(2):206-10.
12. Patel S; Rew DA; Taylor I; Potten CS; Owen C; Roberts SA. Study of the proliferation in human gastric mucosa after in vivo bromodeoxyuridine labelling. Gut, 1993, 34(7):893-6.
13. Risio M; Candelaresi G; Rossini FP. Bromodeoxyuridine uptake and proliferating cell nuclear antigen expression throughout the colorectal tumor sequence. Cancer Epidemiology, Biomarkers and Prevention, 1993, 2(4):363-7.
14. Sanders EJ; Varedi M; French AS. Cell proliferation in the gastrulating chick embryo: a study using BrdU incorporation and PCNA localization. Development, 1993, 118(2):389-99.

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