

Monoclonal anti-bromo-deoxyuridine (clone BU-1)

Warning

For research use only.

Not recommended or intended for diagnosis of disease in humans or animals.

Do not use internally or externally in humans or animals.

Handling

Storage

Store refrigerated at 2–8 °C. Under these conditions the product is stable for at least 3 months.

Expiry

See outer packaging.

Components

Anti-5-2'-deoxyuridine monoclonal antibody:

The monoclonal antibody is supplied in a concentrated form in Tris Buffered Saline containing 0.8% Bovine Serum Albumin, Magnesium Chloride and a preservative. The monoclonal antibody is of murine origin, subclass IgG2a.

Nuclease:

The nuclease for denaturation is supplied in freeze-dried Tris Buffered Saline containing 1% Bovine Serum Albumin, Magnesium Chloride and a stabilizer.

Safety warnings and precautions

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Warning: Contains Sodium Azide. See safety data sheet supplied.

All chemicals should be considered as potentially hazardous. We therefore recommend that this product is handled only by those persons who have been trained in laboratory techniques and that it is used in accordance with the principles of good laboratory practice. Wear suitable protective clothing such as laboratory overalls, safety glasses and gloves. Care should be taken to avoid contact with skin or eyes. In the case of contact with skin or eyes wash immediately with water. See material safety data sheet(s) and/or safety statement(s) for specific advice.

Antibody class

IgG2a antibody produced by fusion between P3/NS1/1-Ag4-1 myeloma cells and Balb/c spleen cells.

Immunogen

5-Iodo-uridine/ovalbumin conjugate.

Specificity

The specificity of the antibody has been tested by competitive ELISA; binding was inhibited by 5-bromo-2'-deoxyuridine, 5-chloro-2'-deoxyuridine and 5-iodo-2'-deoxyuridine. No cross-reactivity was observed with 5-fluoro-2'-deoxyuridine or thymidine.

Reagent preparation

To prepare working strength solution, reconstitute one vial of freeze-dried nuclease with 4 ml of distilled/deionized water. Add 40 µl of the concentrated antibody and gently mix.

Once reconstituted, the antibody/nuclease solution must be stored at 2–8 °C and used within 4 weeks. This solution is ready to use and does not require further dilution.

Applications

The monoclonal antibody to bromo-deoxyuridine is supplied in the same formulation used in the Amersham Biosciences cell proliferation kit (RPN20). Once prepared, the reagent contains a nuclease to produce single stranded DNA which is easily accessible to the antibody without the need for chemical denaturation. This enables detection of cell proliferation while maintaining excellent cell morphology(1,2). The improved preservation of antigens also allows double immunocytochemical staining studies to be carried out(3).

The antibody/nuclease mixture may be used for the study of cell proliferation when a choice of detection system is required. This reagent is compatible with the large range of detection systems available from Amersham Biosciences, including fluorescent labelled antibodies and biotin-streptavidin detection reagents.

Use

- 1) Label proliferating cells using bromo-deoxyuridine/fluorodeoxyuridine labelling reagent (RPN201 or RPN20).
- 2) Process specimen for immunocytochemistry.
- 3) Cover specimen with reconstituted anti-bromo deoxyuridine/nuclease solution and incubate for 1 hour at room temperature.
- 4) Wash 3x3 minutes with Phosphate Buffered Saline.
- 5) Apply detection system.

References

1) GRATZNER, H.G., Science, 218, p.474, 1982.
2) GONCHOROFF, N.J. et al., J.Immunol.Methods, 93, pp.97-101, 1986.
3) CAMPANA, D. et al., J.Immunol.Methods, 107, pp.79-88, 1988.

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Product information

Product name	code
Monoclonal anti-bromo-deoxyuridine (clone BU-1)	RPN202

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<http://www.amershambiosciences.com>
Amersham Biosciences
Amersham Place Little Chalfont Buckinghamshire England HP7 9NA
Amersham Biosciences AB
SE-751 84 Uppsala Sweden
Amersham Biosciences Corp
800 Centennial Avenue PO Box 1327 Piscataway NJ 08855 USA
Amersham Biosciences Europe GmbH
Munzinger Strasse 9 D-79111 Freiburg Germany

