

CytoSelect BrdU Cell Proliferation ELISA Kit

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CATALOG #
AAA44539

PRODUCT SYNONYMS

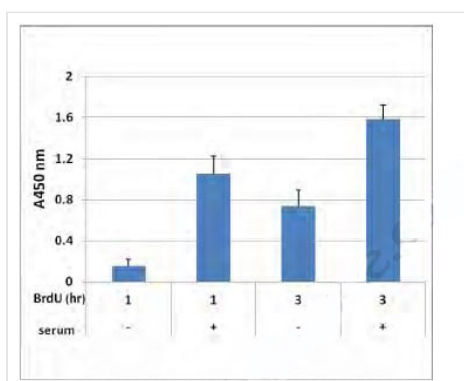
CytoSelect BrdU Cell Proliferation; CytoSelect BrdU Cell Proliferation ELISA Kit; CytoSelect BrdU Cell Proliferation elisa kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Upon receipt, store the 1000X BrdU Solution and Anti-BrdU Monoclonal Antibody at -20 degree C. Store all other components at 4 degree C.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for CytoSelect BrdU Cell Proliferation elisa kit

Principle of the Assay: The CytoSelect™ BrdU Cell Proliferation ELISA Kit detects BrdU incorporated into cellular DNA during cell proliferation using an anti-BrdU antibody. When cells are incubated in media containing BrdU, the pyrimidine analog is incorporated in place of thymidine into the newly synthesized DNA of proliferating cells (Figure 1). Once the labeling media is removed, the cells are fixed and the DNA is denatured in one step with a fix/denature solution (denaturation of the DNA is necessary to improve the accessibility of the incorporated BrdU for detection). Then an anti-BrdU mouse monoclonal antibody is added followed by an HRP conjugated secondary antibody to detect the incorporated BrdU. The magnitude of the absorbance for the developed color is proportional to the quantity of BrdU incorporated into cells and can be directly correlated to cell proliferation.

Background/Introduction: The investigation of cell cycle and DNA synthesis has been essential to many fields of science. Traditionally a radiolabeled thymidine has been used to track new DNA synthesis and cellular proliferation. Although quite sensitive, use of radiolabeled thymidine has the limitation of having to regulate, handle and dispose of radioisotopes and often requires expensive detection equipment. More recently, the thymidine analog 5-bromo-2'-deoxyuridine (BrdU) has been used in place of radiolabeled thymidine and is incorporated into newly synthesized DNA strands of actively proliferating cells. Following fixation and partial denaturation of cellular DNA, BrdU can be detected immunochemically which allows for the analysis of live cell new DNA synthesis.

Product Categories/Family for CytoSelect BrdU Cell Proliferation elisa kit

[Cell Based Assays](#); [Cell Health Assays](#); [Cell Proliferation Assays](#); [BrdU Cell Proliferation ELISA](#)

References

1. Shoghi KI, Xu J, Su Y, He J, Rowland D, Yan Y, Garbow JR, Tu Z, Jones LA, Higashikubo R, Wheeler KT, Lubet RA, Mach RH, You M.. (2013) PLoS One. 8:e74188
 2. Gong F, Wang G, Ye J, Li T, Bai H, Wang W (2013) Oncol Rep. 30:2976-2982
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 5. Imramovský A, Jorda R, Pauk K, Rezníková E, Dušek J, Hanusek J, Kryštof V (2013) Eur J Med Chem 68:253-259.
- Hatzis, C. et al. (2014). Enhancing Reproducibility in Cancer Drug Screening: How Do We Move Forward? Cancer Res. 74:4016-4023.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/elisa-kits/cytoselect-brdu-cell-proliferation/44539>