## **Product Datasheet**

### EdU DNA Synthesis Monitoring (Microscopy) Kit NBP2-54871

Unit Size: 50 Assays

Store at -20C.

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#### NBP2-54871

EdU DNA Synthesis Monitoring (Microscopy) Kit

Product Information	
Unit Size	50 Assays
Concentration	Concentration is not relevant for this product. Please see the protocols for proper use of this product.
Storage	Store at -20C.
Product Description	
Description	<ul> <li>EZClick EdU DNA Synthesis Monitoring Kit: Fluorescence Microscopy Based Assay for measuring de novo DNA synthesis in biological samples such as cell lysate. 50 assays.</li> <li>Detection method- Flow cytometry (Ex = 488 nm; Em = 530 nm) and fluorescence microscopy</li> <li>Applications:Detect early/middle stages of apoptosis; differentiate apoptosis from necrosis.</li> </ul>
Species	Human, Mouse, Rat, Mammal
Kit Components	EZClick Wash Buffer (10X), Fixative Solution, Permeabilization Buffer (10X), EZClick EdU DNA Label (1000X), Copper Reagent (500X), EZClick Fluorescent Azide (100X), Reducing Agent (20X), EZClick Total DNA Stain (1000X)
Suitable Sample Type	Adherent and suspension cells
Product Application Details	
Application Notes	All living cells undergo division cycle, a biological process crucial for proliferation and inheritance. Cell-division cycle is a series of events resulting in two daughter cells containing replicas of DNA from the original DNA molecule. DNA replication occurs in the S phase of the cell cycle and involves de novo synthesis of genomic DNA from its precursors. The ability of monitoring detailed characterization of cell cycle and DNA synthesis in proliferating cells is fundamental in basic, and applied immunologic and oncologic studies. Accurate determination of the effect of biologically active reagents on DNA synthesis and cell cycle is of great importance in anti-cancer drug discovery and basic biology. The EZClick EdU DNA Synthesis Monitoring Kit utilizes a novel approach that relies on incorporation of 5-EdU (5-ethynyl-2'deoxyuridine) as nucleoside analog to thymidine into newly synthesized DNA directly in the cell culture. Incorporation of EdU into genomic DNA in S-phase is detected based on a click reaction between the alkyne moiety of EdU and fluorescent azide. Compared to historically used BrdU, click reaction is carried in mild conditions and fluorescence microscopy can be used for assessment of proliferating cells in the population. Our kit provides sufficient materials for 50 assays based on the protocol below-50 assays





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#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Kits are guaranteed for 6 months from date of receipt.

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