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BrdU Monoclonal Antibody (MoBU-1), Pacific Blue™

Catalog Number **B35129**

Product data sheet

Details	
Size	100 Tests
Host/Isotope	Mouse / IgG
Class	Monoclonal
Type	Antibody
Clone	MoBU-1
Immunogen	BrdU
Conjugate	Pacific Blue™
Form	Liquid
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	5mM sodium azide
Storage Conditions	4° C

Species Reactivity	
Species reactivity	Chemical
Published species	Chemical

Tested Applications	Dilution *
Flow Cytometry (Flow)	Assay-dependent

Published Applications	
Flow Cytometry (Flow)	See 9 publications below
Western Blot (WB)	See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Background/Target Information

Bromodeoxyuridine (5-bromo-2-deoxyuridine, BrdU) is a synthetic nucleoside that is an analogue of thymidine. BrdU is commonly used in the detection of proliferating cells in living tissues, and can be incorporated into the newly synthesized DNA of replicating cells (during the S phase of the cell cycle), substituting for thymidine during DNA replication. Antibodies specific for BrdU can then be used to detect the incorporated chemical, thus indicating cells that were actively replicating their DNA. Binding of the antibody requires denaturation of the DNA, usually by exposing the cells to acid or heat.

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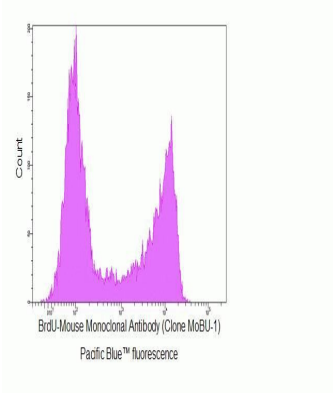
Product Images For BrdU Monoclonal Antibody (MoBU-1), Pacific Blue™



BrdU Antibody (B35129) in Flow

Jurkat T-cell leukemia cells were treated with 10µM BrdU for 1.5 hours. The cells were then fixed in ETOH and stored overnight at -20°C. An acid denaturation method was used to prepare the cells before labeling with BrdU mouse monoclonal antibody (Clone MoBU-1) Pacific™ Blue *for flow cytometry* *100 tests* to detect the incorporated BrdU, each using 5 µL antibody conjugate labeling 1 x 10^6 cells. Proliferating cells are clearly distinguished from non-proliferating cells.

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PubMed References For BrdU Monoclonal Antibody (MoBU-1), Pacific Blue™

9 Flow Cytometry References

Species / Dilution	Summary
Chemical / Not Cited	B35129 was used in Flow Cytometry to study the mechanisms by which tenovin-6 inhibits the proliferation and survival of diffuse large B-cell lymphoma cells. Oncotarget (2017; 8: 14912) **"Tenovin-6 inhibits proliferation and survival of diffuse large B-cell lymphoma cells by blocking autophagy."** Author(s):Yuan H,He M,Cheng F,Bai R,da Silva SR,Aguiar RC,Gao SJ PubMed Article URL:http://dx.doi.org/10.18632/oncotarget.14741
Chemical / Not Cited	B35129 was used in Flow Cytometry to study K29-linked polyubiquitination and degradation of CASTOR1 by E3 ubiquitin ligase RNF167. Nature communications (2021; 12:) **"RNF167 activates mTORC1 and promotes tumorigenesis by targeting CASTOR1 for ubiquitination and degradation."** Author(s):Li T,Wang X,Ju E,da Silva SR,Chen L,Zhang X,Wei S,Gao SJ PubMed Article URL:http://dx.doi.org/10.1038/s41467-021-21206-3
Chemical / Not Cited	B35129 was used in Flow cytometry/Cell sorting to determine if any cells can survive direct influenza B virus infection. Nature communications (2019; 10:) **"Non-lytic clearance of influenza B virus from infected cells preserves epithelial barrier function."** Author(s):Dumm RE,Fiege JK,Waring BM,Kuo CT,Langlois RA,Heaton NS PubMed Article URL:http://dx.doi.org/10.1038/s41467-019-08617-z
Chemical / 1:100	B35129 was used in Flow cytometry/Cell sorting to study how CDH17 plays a role in the long-term survival of memory B cells via an 'MBC niche'. PloS one (2015; 10:) **"BILL-cadherin/cadherin-17 contributes to the survival of memory B cells."** Author(s):Funakoshi S,Shimizu T,Numata O,Ato M,Melchers F,Ohnishi K PubMed Article URL:http://dx.doi.org/10.1371/journal.pone.0117566
Chemical / Not Cited	B35129 was used in Flow cytometry/Cell sorting to elucidate the importance of cavin-3 in dictating the balance between ERK and Akt signalling. eLife (2013; 2:) **"Cavin-3 dictates the balance between ERK and Akt signaling."** Author(s):Hernandez VJ,Weng J,Ly P,Pompey S,Dong H,Mishra L,Schwarz M,Anderson RG,Michaely P PubMed Article URL:http://dx.doi.org/10.7554/eLife.00905
Chemical / Not Cited	B35129 was used in Flow cytometry/Cell sorting to study whether the full replacement of surface B cell receptors following somatic hypermutation occurs before entry to the light zone. Immunity (2018; 49: 477) **"Germinal Center B Cells Replace Their Antigen Receptors in Dark Zones and Fail Light Zone Entry when Immunoglobulin Gene Mutations are Damaging."** Author(s):Stewart I,Radtke D,Phillips B,McGowan SJ,Bannard O PubMed Article URL:http://dx.doi.org/10.1016/j.immuni.2018.08.025
Chemical / Not Cited	B35129 was used in flow cytometry to determine that SIRT1 is functionally required for sustaining the proliferation and survival of primary effusion lymphoma cells The Journal of pathology (2017; 242: 309) **"SIRT1 and AMPK pathways are essential for the proliferation and survival of primary effusion lymphoma cells."** Author(s):He M,Tan B,Vasan K,Yuan H,Cheng F,Ramos da Silva S,Lu C,Gao SJ PubMed Article URL:http://dx.doi.org/10.1002/path.4905
Chemical / Not Cited	B35129 was used in Flow cytometry/Cell sorting to demonstrate biallelic partial loss-of-function mutations in GINS4, defining a potentially novel disease-causing gene underlying NKD with neutropenia. JCI insight (2022; 7:) **"Partial loss-of-function mutations in GINS4 lead to NK cell deficiency with neutropenia."** Author(s):Conte MI,Poli MC,Taglialatela A,Leuzzi G,Chinn IK,Salinas SA,Rey-Jurado E,Olivares N,Veramendi-Espinoza L,Ciccia A,Lupski JR,Aldave Becerra JC,Mace EM,Orange JS PubMed Article URL:http://dx.doi.org/10.1172/jci.insight.154948

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	B35129 was used in Flow cytometry/Cell sorting to elucidate the role of XPO1 in cell proliferation and growth transformation of KSHV-transformed cells and in cell lines of other cancers, including gastric cancer and liver cancer.
Chemical / Not Cited	mBio (2019; 10:) **"CRISPR-Cas9 Screening of Kaposi's Sarcoma-Associated Herpesvirus-Transformed Cells Identifies XPO1 as a Vulnerable Target of Cancer Cells."** Author(s):Gruffaz M,Yuan H,Meng W,Liu H,Bae S,Kim JS,Lu C,Huang Y,Gao SJ PubMed Article URL:http://dx.doi.org/10.1128/mBio.00866-19

1 Western Blot References

Species / Dilution	Summary
	B35129 was used in Western Blotting to define the mechanism of KSHV activation of the mTORC1 pathway and establish the scientific basis for targeting this pathway to treat KSHV-associated cancers.
Chemical / Not Cited	The Journal of clinical investigation (2019; 129: 3310) **"Kaposi sarcoma-associated herpesvirus miRNAs suppress CASTOR1-mediated mTORC1 inhibition to promote tumorigenesis."** Author(s):Li T,Ju E,Gao SJ PubMed Article URL:http://dx.doi.org/10.1172/JCI127166

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