Technical Data Sheet

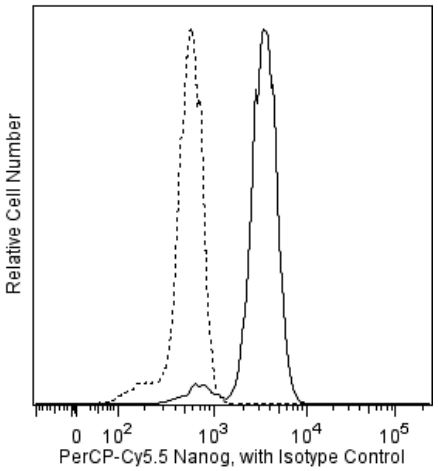
PerCP-Cy™5.5 Mouse Anti-Human Nanog

Product Information

Material Number:	**562259**
Size:	50 tests
Vol. per Test:	5 µl
Clone:	N31-355
Immunogen:	Human Nanog Recombinant Protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC Tested: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The N31-355 monoclonal antibody reacts with human Nanog (named for Tir Na Nog, the land of the ever-young of Celtic mythology), which is a homeobox transcription factor required for the maintenance of the undifferentiated state of pluripotent stem cells. Nanog expression counteracts the differentiation-promoting signals induced by the extrinsic factors LIF (Leukemia Inhibitory Factor) and BMP (Bone Morphogenic Protein). When Nanog expression is down-regulated, cell differentiation can proceed. Proteins that regulate Nanog expression include transcription factors Oct4, SOX2, FoxD3, and Tcf3 and tumor suppressor p53. Nanog is one of the factors that can contribute to reprogramming of differentiated cells to an induced pluripotent stem cell state.



Flow cytometric analysis of PerCP-Cy™5.5 anti-Nanog on human embryonic stem (ES) cells. *H9 human ES cells (WiCell, Madison, WI) passage 48 grown in mTESR™1 media (StemCell Technologies) on BD Matrigel™ hESC-qualified Matrix (Cat. No. 354277) were harvested with BD™ Accutase™ Cell Detachment Solution (Cat. No. 561527), fixed In BD Cytofix™ Fixation Buffer (Cat. No. 554655), permeabilized with BD Phosflow™ Perm Buffer III (Cat. No. 558050), and stained with PerCP-Cy™ 5.5 anti-human Nanog antibody (solid line) or a PerCP-Cy™ 5.5 mouse IgG1, κ isotype control (Clone MOPC-21, Cat. No.550795, dashed line). Flow cytometry was performed on a BD™ LSR II flow cytometry system.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
561527	Accutase™ Cell Detachment Solution	100 ml	(none)
558050	Perm Buffer III	125 ml	(none)
354277	BD Matrigel™ hESC-qualified Matrix, 5 ml vial	NA	(none)
550795	PerCP-Cy™5.5 Mouse IgG1 κ Isotype Control	0.1 mg	MOPC-21

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
5. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
8. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
9. mTESR™1 is a trademark of StemCell Technologies.
10. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
11. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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