Nanog Monoclonal Antibody (eBioMLC-51), Alexa Fluor™ 488, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Rat, Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Alexa Fluor™ 488, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioMLC-51
Conjugate	Alexa Fluor™ 488
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_763611

Applications	Tested Dilution	Publications
Western Blot (WB)	-	5 Publications
Immunohistochemistry (IHC)	-	7 Publications
Immunocytochemistry (ICC/IF)	10 µg/mL	23 Publications
Flow Cytometry (Flow)	0.06 µg/test	6 Publications
ChIP assay (ChIP)	-	2 Publications

Product Specific Information

Description: The eBioMLC51 monoclonal antibody recognizes mouse Nanog. Nanog is a multidomain homeobox transcription factor that has been shown to maintain pluripotency of embryonic stem cells, independent of LIF/Stat3. Expression of Nanog in the mouse is specific to early embryos, the ICM of the blastocyst, embryonic stem (ES) cells, and embryonic germ (EG) cells. Nanog expression often overlaps, but is not identical to, that of Oct4. Nanog is downregulated upon cellular differentiation and loss of pluripotency, making it a suitable marker in determining the undifferentiated state of stem cells.

Nanog acts as a transcriptional activator and has two activation domains in the C-terminus, called CD2 and WR, and one activation domain in the N terminus. The CD2 domain is unique to Nanog, whereas the NK2 DNA binding domain is well conserved.

Immunoblotting using eBioMLC51 reveals a band at ~ 45 kDa in F9 (an embryonal carcinoma cell line) lysate, but not in lysate

from the NIH3T3 cell line or mouse spleen.

Preliminary data using fluorochrome-conjugated eBioMLC51 suggests that it is essential to use the eBioscience Foxp3 Staining Buffer Set, Cat. 00-5523, for intracellular staining of mouse Nanog.

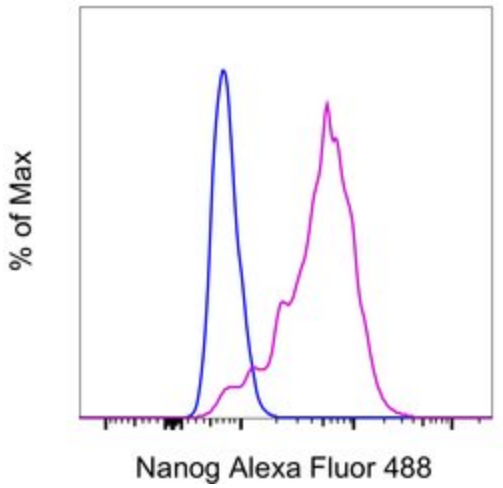
Applications Reported: This eBioMLC-51 antibody has been reported for use in intracellular staining followed by flow cytometric analysis, and immunocytochemistry.

Applications Tested: This eBioMLC-51 antibody has been tested by intracellular staining followed by flow cytometric analysis of the F9 cell line using the Foxp3/Transcription Factor Staining Buffer Set (cat. 00-5523) and protocol. Please refer to Best Protocols: Protocol B: One-step protocol for intracellular (nuclear) proteins. This antibody can be used at less than or equal to 0.06 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. This eBioMLC-51 antibody has been tested by immunocytochemistry on fixed and permeablized F9 cells and can be used at less than or equal to 10 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488 nm; Emission: 519 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For Nanog Monoclonal Antibody (eBioMLC-51), Alexa Fluor™ 488, eBioscience™



Nanog Antibody (53-5761-80) in Flow
F9 cells were stained intracellularly, using the Foxp3/Transcription Factor Staining Buffer Set (Product # 00-5523-00) and protocol, with 0.06 µg of Rat IgG2a kappa Isotype Control, Alexa Fluor 488 (Product # 53-4321-80) (blue histogram) or 0.06 µg of Nanog Monoclonal Antibody, Alexa Fluor 488 (purple histogram). Total cells were used for analysis.

View more figures on thermofisher.com

43 References

Western Blot (5)

Nature

NANOG alone induces germ cells in primed epiblast in vitro by activation of enhancers.

"Published figure using Nanog monoclonal antibody (Product # 53-5761-80) in Western Blot"

Authors: Murakami K,Günesdogan U,Zylicz JJ,Tang WWC,Sengupta R,Kobayashi T,Kim S,Butler R,Dietmann S,Surani MA

Species
Not Applicable

Dilution
Not Cited

Year
2016

Stem cell reports

Reprogramming Roadblocks Are System Dependent.

"Published figure using Nanog monoclonal antibody (Product # 53-5761-80) in Western Blot"

Authors: Chantzoura E,Skylaki S,Menendez S,Kim SI,Johnsson A,Linnarsson S,Woltjen K,Chambers I,Kaji K

Species
Not Applicable

Dilution
Not Cited

Year
2015

View more WB references on thermofisher.com

Immunohistochemistry (7)

PLoS biology

Four simple rules that are sufficient to generate the mammalian blastocyst.

"Published figure using Nanog monoclonal antibody (Product # 53-5761-80) in Immunofluorescence"

Authors: Nissen SB,Perera M,Gonzalez JM,Morgani SM,Jensen MH,Sneppen K,Brickman JM,Trusina A

Species
Not Applicable

Dilution
Not Cited

Year
2017

Development (Cambridge, England)

Selection and dynamics of embryonic stem cell integration into early mouse embryos.

"Published figure using Nanog monoclonal antibody (Product # 53-5761-80) in Immunofluorescence"

Authors: Alexandrova S,Kalkan T,Humphreys P,Riddell A,Scognamiglio R,Trumpp A,Nichols J

Species
Not Applicable

Dilution
Not Cited

Year
2016

View more IHC references on thermofisher.com

More applications with references on thermofisher.com

ICC/IF (23) **Flow (6)** **ChIP (2)**