

PE/Cyanine7 anti-OCT4 (OCT3) Antibody

Catalog# / Size	653717 / 25 tests 653718 / 100 tests
Clone	3A2A20
Regulatory Status	RUO
Other Names	POU domain class 5, transcription factor 1 (POU5F1), OCT4, OCT3
Isotype	Mouse IgG2b, κ
Description	Oct4 (Octamer binding transcription factor 4) is an important marker of the undifferentiated state and central regulator of pluripotency in ES cells. When embryonic stem cells are triggered to differentiate, Oct4 is downregulated, thus providing a model for the early events linked to somatic differentiation in the developing embryo. Oct4 is a nuclear protein, with a predicted molecular weight of 39 kD.

Product Details

Verified Reactivity	Human, Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Partial human Oct4 recombinant protein (1-141aa).
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
RRID	AB_3699079 (BioLegend Cat. No. 653717) AB_3699079 (BioLegend Cat. No. 653718)

Antigen Details

Structure	Belongs to the POU transcription factor family, predicted molecular weight of 39 kD
Distribution	Nuclear protein, expressed in undifferentiated embryonal carcinoma (EC) cells, embryonic stem (ES) cells and embryonic germ (EG) cells
Function	Transcription factor that binds to the octamer motif (5'-ATTTGCAT-3'). Oct4 is a prime candidate for an early developmental control gene. It also is an important marker of the undifferentiated state and central regulator of pluripotency in ES cells.

Interaction	SOX2, SOX8, SOX10, androgen receptor, and ETS2
Biology Area	Cell Biology, Immunology, Stem Cells, Transcription Factors
Antigen References	<ol style="list-style-type: none"> 1. Niwa H, <i>et al.</i> 2000. <i>Nature Genet.</i> 24:372. 2. Wernig M, <i>et al.</i> 2007. <i>Nature</i> 448:318. 3. Pesce M, <i>et al.</i> 2001. <i>Stem Cells</i> 19:271.
Gene ID	5460

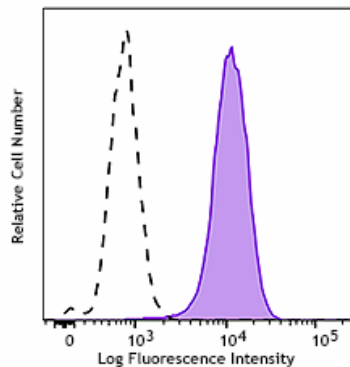
Related Protocols

- [Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-Oct4 (Oct3), PE anti-Oct4 (Oct3), Alexa Fluor® 488 anti-Oct4 (Oct3), Brilliant Violet 421™ anti-Oct4 (Oct3), Alexa Fluor® 647 anti-Oct4 (Oct3), PE/Cyanine7 anti-OCT4 (OCT3)

Product Data



Human teratocarcinoma cell line, NCCIT, cells were fixed and permeabilized with FOXP3 Fix/Perm Buffer Set (Cat. No. 421403), and intracellularly stained with anti-human OCT4 (clone 3A2A20) PE/Cyanine7 (filled histogram) or mouse IgG2b, κ PE/Cyanine7 isotype control (open histogram).

For Research Use Only. Not for diagnostic or therapeutic use.

This product is supplied subject to the terms and conditions, including the limited license, located at www.biolegend.com/terms ("Terms") and may be used only as provided in the Terms. Without limiting the foregoing, BioLegend products may not be used for any Commercial Purpose as defined in the Terms, resold in any form, used in manufacturing, or reverse engineered, sequenced, or otherwise studied or used to learn its design or composition without express written approval of BioLegend. Regardless of the information given in this document, user is solely responsible for determining any license requirements necessary for user's intended use and assumes all risk and liability arising from use of the product. BioLegend is not responsible for patent infringement or any other risks or liabilities whatsoever resulting from the use of its products.

BioLegend, the BioLegend logo, and all other trademarks are property of BioLegend, Inc. or their respective owners, and all rights are reserved.

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587