

OCT3/4 Monoclonal Antibody (EM92), eFluor™ 660, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Human, Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), eFluor™ 660, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	EM92
Conjugate	eFluor™ 660
Excitation/Emission Max	651/668 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_11218882

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	2 Publications
Flow Cytometry (Flow)	1 µg/test	9 Publications

Product Specific Information

Description: The EM92 monoclonal antibody reacts with mouse and human Oct3/4, encoded by the Pou5F1 gene. Oct3/4 is a POU domain-containing transcription factor that is critical for maintaining embryonic stem (ES) and induced pluripotent stem (iPS) cells in a pluripotent state, and is expressed by ES, embryonic germ cells and embryonic carcinoma cell lines. In cells of the inner cell mass (ICM), reduction of Oct3/4 expression causes dedifferentiation to trophoectoderm, whereas increased expression results in differentiation to mesoderm and primitive endoderm. Oct3/4 regulates the expression of several genes, including FGF-4, UTF1, Sox2, Fbx15, Rex1 and osteopontin through distinct mechanisms. Furthermore, Oct3/4 frequently acts synergistically with Sox2 to regulate target gene expression, as is the case with FGF-4. It has been demonstrated that Oct3/4 expression in ES cells can be negatively regulated by either treatment with retinoic acid, or by removal of leukemia-inhibitory factor (LIF).

Applications Reported: This EM92 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This EM92 antibody has been tested by intracellular staining and flow cytometric analysis of the F9 cell line using the Foxp3/Transcription Factor Staining Buffer Set (cat. 00-5523) and protocol. This can be used at less than or equal to 1 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody

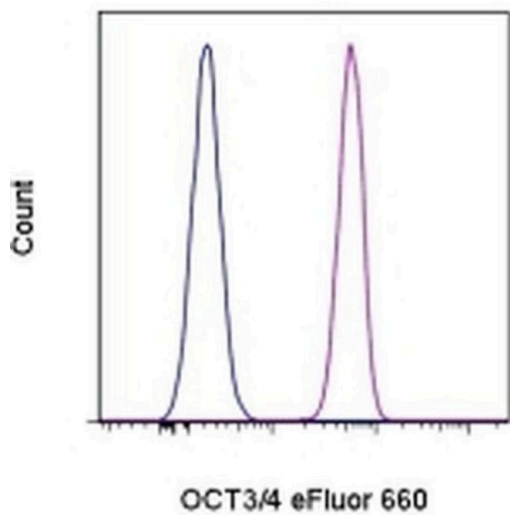
be carefully titrated for optimal performance in the assay of interest.

eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

Excitation: 633-647 nm; Emission: 668 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For OCT3/4 Monoclonal Antibody (EM92), eFluor™ 660, eBioscience™



OCT3/4 Antibody (50-5841-82) in Flow
Intracellular staining of F9 cells with 0.5 µg of Rat IgG2a K Isotype Control eFluor® 660 (Product # 50-4321-82) (blue histogram) or Anti-Human/Mouse OCT3/4 eFluor® 660 (purple histogram) using the Foxp3 Staining Buffer Set (Product # 00-5523-00) and protocol. Total cells were used for analysis.

[View more figures on thermofisher.com](https://thermofisher.com)

Immunocytochemistry (2)

Cell reports methods	Year 2021
Comparative analysis of CI- and CIV-containing respiratory supercomplexes at single-cell resolution.	
"Published figure using OCT3/4 monoclonal antibody (Product # 50-5841-82) in Immunocytochemistry"	
Authors: Bertan F,Wischhof L,Scifo E,Guranda M,Jackson J,Marsal-Cots A,Piazzesi A,Stork M,Peitz M,Prehn JHM, Ehninger D,Nicotera P,Bano D	

Cell reports	Year 2020
Pressure-Driven Mitochondrial Transfer Pipeline Generates Mammalian Cells of Desired Genetic Combinations and Fates.	
"Published figure using OCT3/4 monoclonal antibody (Product # 50-5841-82) in Immunocytochemistry"	
Authors: Patananan AN,Sercel AJ,Wu TH,Ahsan FM,Torres A,Kennedy SAL,Vandiver A,Collier AJ,Mehrabi A, Van Lew J,Zakin L,Rodriguez N,Sixto M,Tadros W,Lazar A,Sieling PA,Nguyen TL,Dawson ER,Braas D,Golovato J,Cisneros L, Vaske C,Plath K,Rabizadeh S,Niazi KR,Chiou PY,Teitell MA	

Flow Cytometry (9)

Neoplasia (New York, N.Y.)	Year 2021
CBP-mediated Wnt3a/-catenin signaling promotes cervical oncogenesis initiated by Piwil2.	
"50-5841 was used in Flow cytometry/Cell sorting to determine that canonical Wnt signaling was aberrantly activated in HaCaT cells transfected with lentivirus expressing Piwil2 and in cervical lesion specimens of low-grade squamous intraepithelial lesion, high-grade squamous intraepithelial lesion, and invasive carcinoma."	
Authors: Feng D,Yan K,Liang H,Liang J,Wang W,Yu H,Zhou Y,Zhao W,Dong Z,Ling B	

American journal of translational research	Year 2020
Human induced pluripotent stem cells ameliorate hyperoxia-induced lung injury in a mouse model.	
"50-5841 was used in Flow cytometry/Cell sorting to determine if iPSCs and diPSCs could repair hyperoxia-induced lung damage in a mouse model."	
Authors: Mitchell A,Wanczyk H,Jensen T,Finck C	

[View more Flow references on thermofisher.com](#)

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.