OCT3/4 Monoclonal Antibody (EM92), PE, 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), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	EM92
Conjugate	PE
Form	Liquid
Concentration	0.2 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_914368

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	2 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).

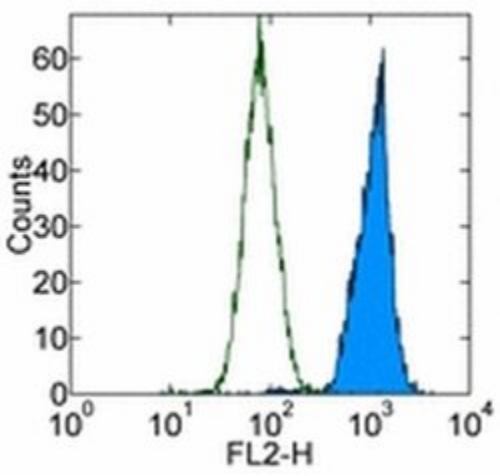
Applications Reported: This EM92 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This EM92 antibody has been tested by intracellular staining and flow cytometric analysis of F9 embryonal carcinoma cells using the Foxp3/Transcription Factor Staining Buffer Set (cat. 00-5523) and protocol. Please see Best Protocols for Staining Protocol (refer to Protocol B: One-step protocol for intracellular (nuclear) proteins). This antibody can be used at less than or equal to 0.5 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. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

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



OCT3/4 Antibody (12-5841-82) in Flow
Staining of F9 embryonal carcinoma cell line with 0.25 µg of Rat IgG2a K Isotype Control PE (Product # 12-4321-80) (open histogram) or 0.25 µg of Anti-Mouse OCT3 /4 PE (filled histogram). Staining was carried out using the Foxp3 Staining Buffer Set (00-5523). Total cells were used for analysis.

2 References

Flow Cytometry (2)

Genome research

The HUSH complex cooperates with TRIM28 to repress young retrotransposons and new genes.

"12-5841 was used in Flow cytometry/Cell sorting to study the role of the human silencing hub complex in naive pluripotent stem cells."

Authors: Robbez-Masson L,Tie CHC,Conde L,Tunbak H,Husovsky C,Tchasovnikarova IA,Timms RT,Herrero J,Lehner PJ,Rowe HM

Species
Human

Dilution
Not Cited

Year
2018

PloS one

Highly upregulated Lhx2 in the Foxn1-/- nude mouse phenotype reflects a dysregulated and expanded epidermal stem cell niche.

"12-5841 was used in Flow cytometry/Cell sorting to indicate that the Foxn1(-/-) phenotype has a strong impact on epithelial progeny."

Authors: Bohr S,Patel SJ,Vasko R,Shen K,Huang G,Yarmush ML,Berthiaume F

Species
Mouse
Not Applicable

Dilution
Not Cited
Not Cited

Year
2013