

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).

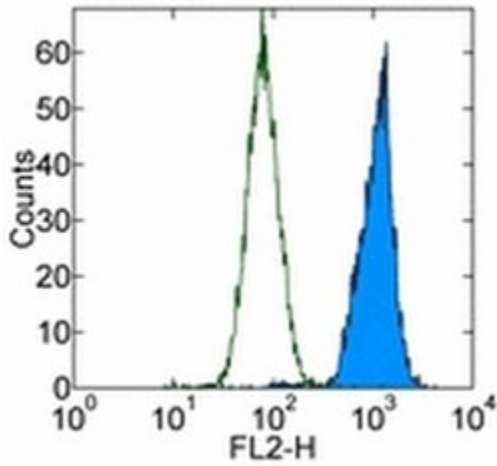
Applications Reported: This EM92 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

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 10⁵ to 10⁸ 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 Fcγ3 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

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