

# OCT3/4 Monoclonal Antibody (EM92), eBioscience™

## Product Details

Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Human
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	EM92
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_914301

Applications	Tested Dilution	Publications
Western Blot (WB)	2 µg/mL	-
Immunohistochemistry (IHC)	Assay-Dependent	-
Immunocytochemistry (ICC/IF)	-	2 Publications
Flow Cytometry (Flow)	-	4 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 trophoblast, 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 immunoblotting (WB).

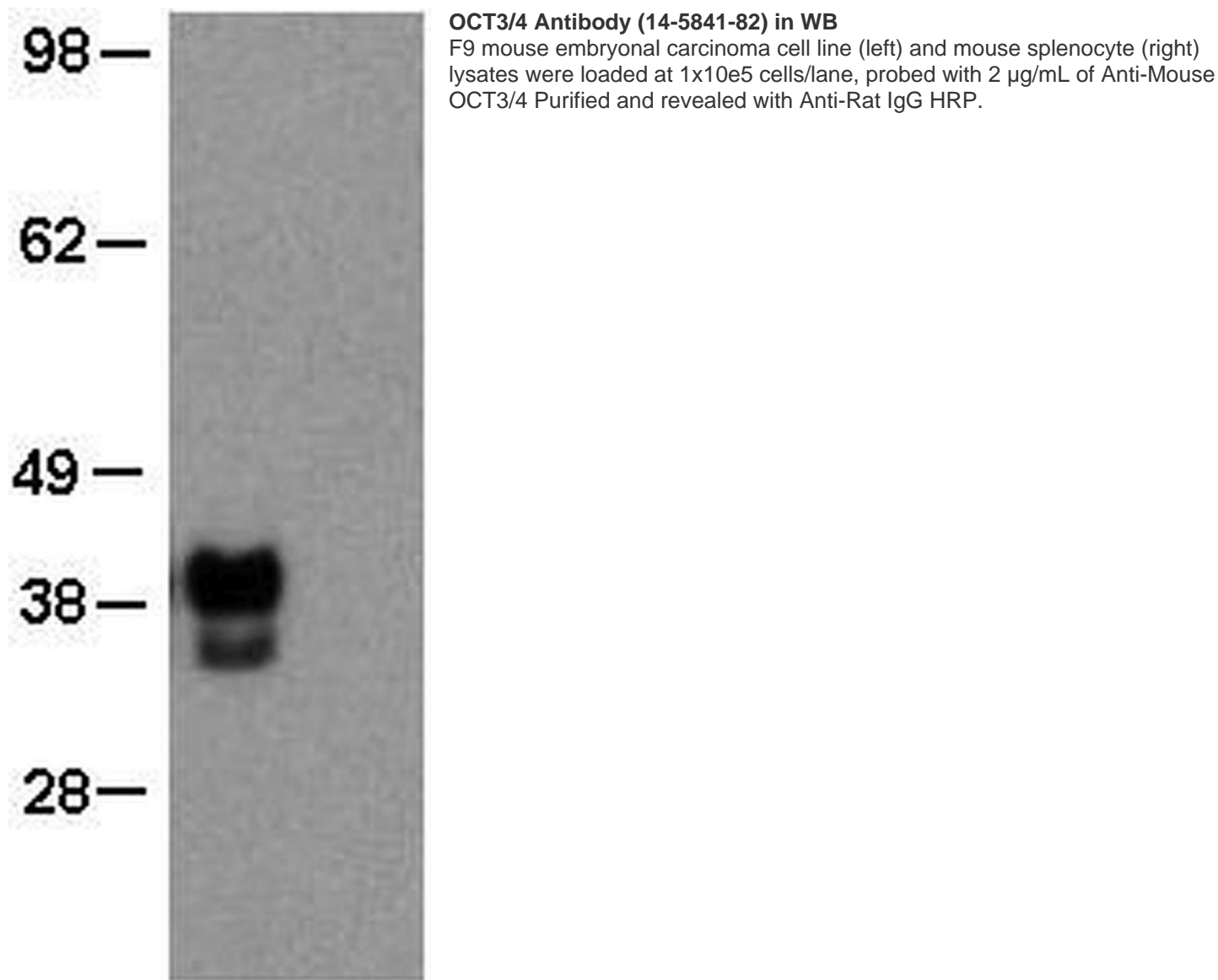
**Applications Tested:** This EM92 antibody has been tested by western blot analysis of F9 and P19 embryonal carcinoma cell lysates. For western blotting, this antibody can be used at a starting dilution 2 µg/mL. However, the antibody should be titrated for individual experiments.

**Purity:** Greater than 90%, as determined by SDS-PAGE.

**Aggregation:** Less than 10%, as determined by HPLC.

**Filtration:** 0.2 µm post-manufacturing filtered.

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



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## Immunocytochemistry (2)

<p><b>Cell reports methods</b></p> <p><b>Comparative analysis of CI- and CIV-containing respiratory supercomplexes at single-cell resolution.</b></p> <p>"Published figure using OCT3/4 monoclonal antibody (Product # 14-5841-82) in Immunocytochemistry"</p> <p>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</p>	<p><b>Year</b> 2021</p> <p><b>Species</b> Human</p>
<p><b>Cell reports</b></p> <p><b>Pressure-Driven Mitochondrial Transfer Pipeline Generates Mammalian Cells of Desired Genetic Combinations and Fates.</b></p> <p>"Published figure using OCT3/4 monoclonal antibody (Product # 14-5841-82) in Immunocytochemistry"</p> <p>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</p>	<p><b>Year</b> 2020</p>

## Flow Cytometry (4)

<p><b>Neoplasia (New York, N.Y.)</b></p> <p><b>CBP-mediated Wnt3a/-catenin signaling promotes cervical oncogenesis initiated by Piwil2.</b></p> <p>"Published figure using OCT3/4 monoclonal antibody (Product # 14-5841-82) in Flow Cytometry"</p> <p>Authors: Feng D,Yan K,Liang H,Liang J,Wang W,Yu H,Zhou Y,Zhao W,Dong Z,Ling B</p>	<p><b>Year</b> 2021</p>
<p><b>Molecular cell</b></p> <p><b>TAF5L and TAF6L Maintain Self-Renewal of Embryonic Stem Cells via the MYC Regulatory Network.</b></p> <p>"Published figure using OCT3/4 monoclonal antibody (Product # 14-5841-82) in Flow Cytometry"</p> <p>Authors: Seruggia D,Oti M,Tripathi P,Canver MC,LeBlanc L,Di Giammartino DC,Bullen MJ,Nefzger CM,Sun YBY,Farouni R,Polo JM,Pinello L,Apostolou E,Kim J,Orkin SH,Das PP</p>	<p><b>Year</b> 2019</p>

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