

## Product datasheet for **TA320446**

### **Pou5f1 Rat Monoclonal Antibody [Clone ID: EM92]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	EM92
Applications:	WB
Recommended Dilution:	IHC, WB
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Formulation:	Aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Concentration:	lot specific
Purification:	Affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	POU domain, class 5, transcription factor 1
Database Link:	<a href="#">NP_038661</a> <a href="#">Entrez Gene 18999 Mouse P20263</a>

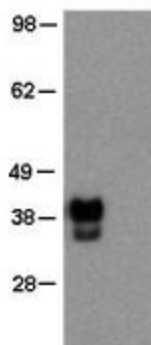
**Background:** The EM92 monoclonal antibody reacts with mouse and human Oct3/4, encoded by the Pou5F1 gene. Oct3/4 is a POU domain-containing transcription factor that is critical for maintaining embryonic stem (ES) and induced pluripotent stem (iPS) cells in a pluripotent state, and is expressed by 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).



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Synonyms: MGC22487; Oct-3; Oct-4; OCT3; OCT4; OTF3; OTF4

### Product images:



F9 mouse embryonal carcinoma cell line (left) and mouse splenocyte (right) lysates were loaded at  $1 \times 10^5$  cells/lane, probed with 2  $\mu\text{g}/\text{mL}$  of Anti-Mouse OCT3/4 Purified and revealed with Anti-Rat IgG HRP.