

# Oct4 Rabbit mAb

Catalog No: #49129



Package Size: #49129-1 50ul #49129-2 100ul

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## Description

Product Name	Oct4 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	SD0750
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, IP, CHIP
Species Reactivity	Hu, Ms
Immunogen Description	recombinant protein
Other Names	Octamer binding transcription factor 4 antibody MGC22487 antibody Oct 3 antibody Oct 4 antibody Oct-3 antibody Oct-4 antibody OCT3 antibody Oct4 antibody Octamer binding protein 3 antibody Octamer binding protein 4 antibody Octamer binding transcription factor 3 antibody Octamer-binding protein 3 antibody Octamer-binding protein 4 antibody Octamer-binding transcription factor 3 antibody OTF 3 antibody OTF 4 antibody OTF-3 antibody OTF3 antibody OTF4 antibody PO5F1_HUMAN antibody POU class 5 homeobox 1 antibody POU domain class 5 transcription factor 1 antibody POU domain transcription factor OCT4 antibody POU domain, class 5, transcription factor 1 antibody POU-type homeodomain-containing DNA-binding protein antibody POU5F1 antibody
Accession No.	Swiss-Prot#:Q01860
Calculated MW	39 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

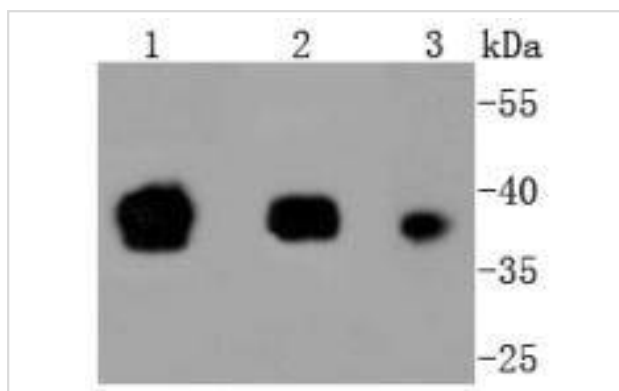
## Application Details

WB: 1:1,000-5,000

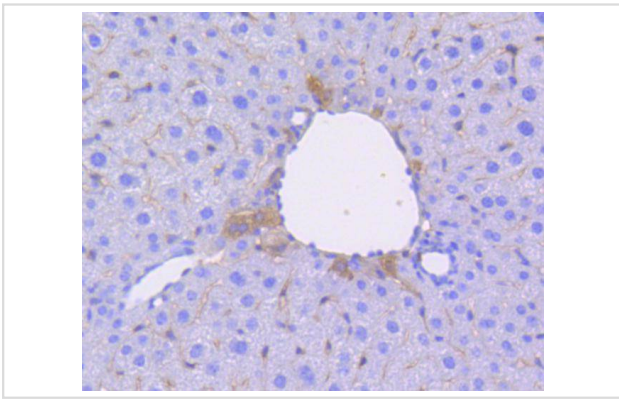
IHC: 1:50-1:200

ICC: 1:50-1:200

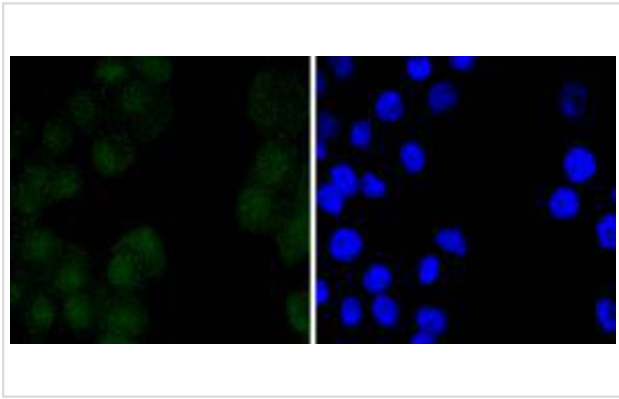
## Images



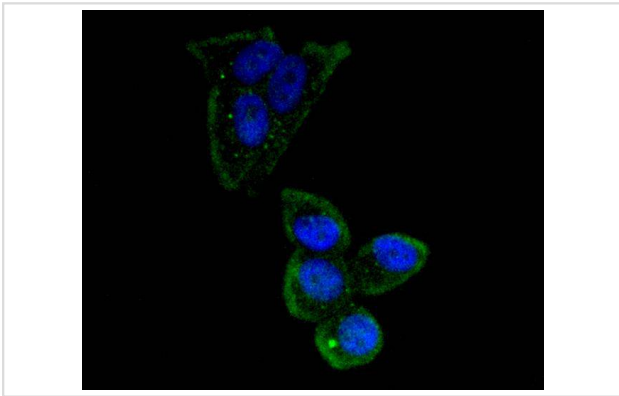
Western blot analysis of Oct4 on different lysates using anti-Oct4 antibody at 1/1,000 dilution. Positive control: Lane 1: F9 Lane 2: NCCIT Lane 3: hES



Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-Oct4 antibody. Counter stained with hematoxylin.



ICC staining Oct4 in N2A cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Oct4 in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

## Background

POU5F1 (POU domain, class 5, transcription factor 1), also known as octamer-binding transcription factor-3 (Oct-3, OTF3), octamer-binding transcription factor-4 (Oct-4, Otf-4) and Oct-3/4, modulates embryonic stem (ES) cell populations by influencing lineage commitment. Oct-3/4 sustains stem-cell self-renewal and differentiation pathways. Transcription factors containing the POU homeodomain regulate tissue-specific gene expression in lymphoid and pituitary differentiation and in early mammalian development. Oct-3/4 is capable of inducing rapid proliferation and tumorigenic properties of ES cells through activation of the UTF1 gene. In humans, two Oct-3/4 isoforms contribute to influencing the undifferentiated phenotype of ES cells. Oct-3/4 pseudogenes localizing to human chromosomes 10 and 8 are reported to be transcribed in certain cancer cell lines and tissues.

## References

1. Vessoni AT et al. Cockayne syndrome-derived neurons display reduced synapse density and altered neural network synchrony. *Hum Mol Genet* 25:1271-80 (2016).
2. Fang L et al. Jumonji AT-rich interactive domain 1B overexpression is associated with the development and progression of glioma. *Int J Mol Med* 38:172-82 (2016).

## Published Papers

et al., Liquid Helium Enhanced Vitrification Efficiency of Human Bone-Derived Mesenchymal Stem Cells and Human Embryonic Stem Cells. In

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.