

Product datasheet for **CF500035**

Oct4 (POU5F1) Mouse Monoclonal Antibody [Clone ID: OTI9B7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI9B7
Applications:	IF, IHC, WB
Recommended Dilution:	WB 1:5000, IHC 1:50, IF 1:100
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human POU5F1 (NP_002692) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	38.4 kDa
Gene Name:	POU class 5 homeobox 1
Database Link:	NP_002692 Entrez Gene 5460 Human Q01860



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Background:

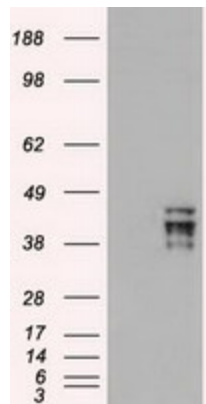
This gene encodes a transcription factor containing a POU homeodomain. This transcription factor plays a role in embryonic development, especially during early embryogenesis, and it is necessary for embryonic stem cell pluripotency. A translocation of this gene with the Ewing's sarcoma gene, t(6;22)(p21;q12), has been linked to tumor formation. Alternative splicing, as well as usage of alternative translation initiation codons, results in multiple isoforms, one of which initiates at a non-AUG (CUG) start codon. Related pseudogenes have been identified on chromosomes 1, 3, 8, 10, and 12.

Synonyms:

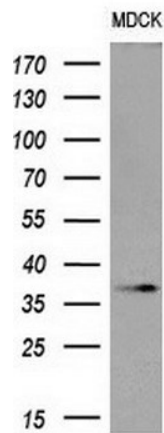
Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF3; OTF4

Protein Families:

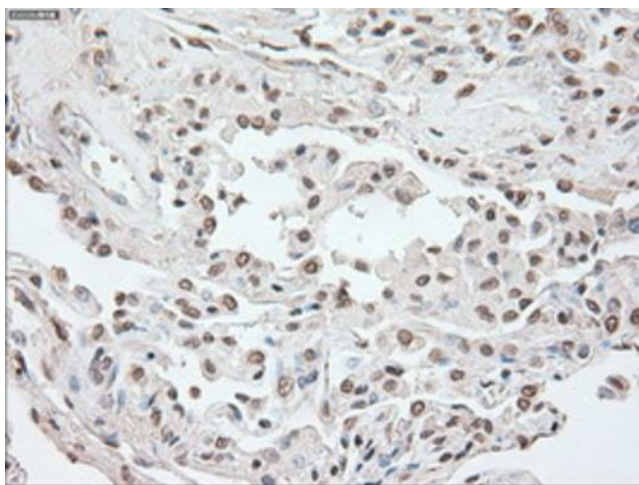
Adult stem cells, Cancer stem cells, Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency, Transcription Factors

Product images:


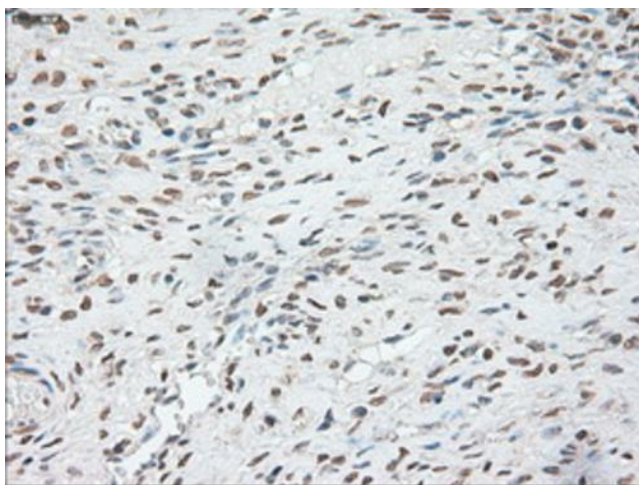
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY OCT4 (Cat# [RC211998], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-OCT4 (Cat# [TA500035]). Positive lysates [LY400950] (100ug) and [LC400950] (20ug) can be purchased separately from OriGene.



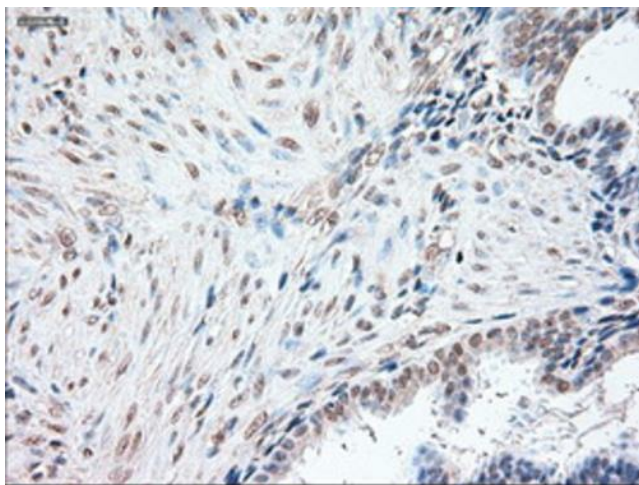
Western blot analysis of extracts (10ug) from 1 cell line by using anti-OCT4 monoclonal antibody at 1:200 dilution.



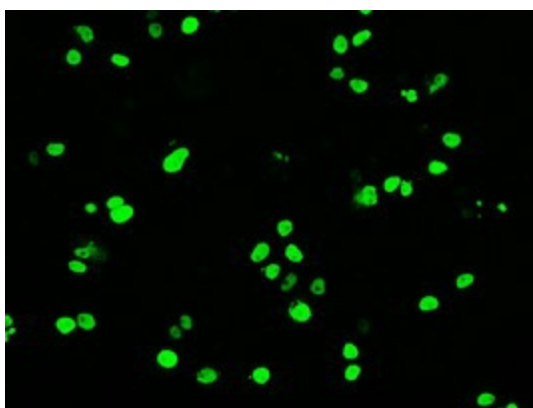
Immunohistochemical staining of paraffin-embedded Human lung tissue within the normal limits using anti-OCT4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Human Ovary tissue within the normal limits using anti-OCT4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-OCT4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-OCT4 mouse monoclonal antibody ([TA500035]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY OCT4 ([RC211998]).