

## OCT4 Polyclonal Antibody

Catalog number: 11263-1-AP

Size: 54 µg/150 µl

Source: Rabbit

Isotype: IgG

Synonyms:

POU5F1; Oct 3, Oct 4, OCT3,

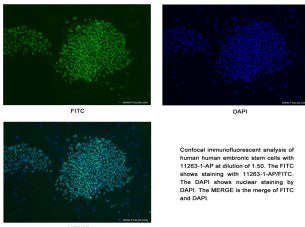
OCT3/4, OCT4, Octamer

binding protein 3, Octamer

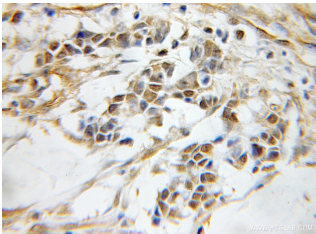
binding protein 4, OTF 3, OTF3,

OTF4, POU class 5 homeobox 1,

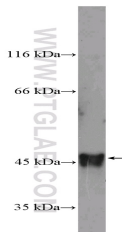
POU5F1



Confocal immunofluorescent analysis of human embryonic stem cells with 11263-1-AP at dilution of 1:50. The FITC shows staining with 11263-1-AP/FITC. The DAPI shows nuclear staining by DAPI. The MERGE is the merge of FITC and DAPI.



Immunohistochemical of paraffin-embedded human colon cancer using 11263-1-AP (OCT4 antibody) at dilution of 1:50 (under 10x lens)



H7ES cells were subjected to SDS PAGE followed by western blot with 11263-1-AP (OCT4 Antibody) at dilution of 1:1000

### Background

Expression of the Oct-4 transcription factor is associated with an undifferentiated phenotype of human and mouse embryonic stem cells and germ cells. Oct-4 (Octamer-4) is a homeodomain transcription factor of the POU family (POU5F1) involved in regulation of pluripotency during normal development and is detectable in embryonic stem (ES) and germ cells. Its expression is associated with an undifferentiated phenotype and tumors. In fact, gene knockdown of Oct4 promotes differentiation, thereby demonstrating a role for this factor in human ES cell self-renewal. As such, it is frequently used as a marker for undifferentiated ES cells or iPS (induced pluripotent stem) cells. Oct4 is one of the four key transcription factors (Oct4, Sox2, c-Myc, and KLF4) used to reprogram mouse and human fibroblasts to a pluripotent state as well as generate patient-specific iPS cells. Affinity purified rabbit anti-Oct4 can be used to demonstrate pluripotency of ES and iPS cells.

### Applications

Tested applications:	ELISA, IHC, IF, WB
Cited applications:	IHC, WB
Species specificity:	Human, Mouse, Rat; other species not tested.
Cited species:	Human, mouse, rat
Calculated OCT4 MW:	39 kDa
Observed OCT4 MW:	50kd
Positive WB detected in	H7ES cells, HEK-293 cells, hESC cells, mouse brain tissue, mouse kidney tissue
Positive IHC detected in	Human colon cancer tissue
Positive IF detected in	Human embryonic stem cells
Recommended dilution:	WB: 1:500-1:5000 IHC: 1:20-1:200 IF: 1:20-1:200

Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

### Immunogen information

Immunogen:	Ag1794
GenBank accession number:	BC020712
Gene ID (NCBI):	5460
Full name:	POU class 5 homeobox 1

### Product information

Purification method:	Antigen affinity purification
Storage:	PBS with 0.02% sodium azide and 50% glycerol pH 7.3. Store at -20°C.