

Rabbit anti-Human, Mouse Oct-4 Polyclonal Antibody | anti-Oct-4 antibody

Oct-4 antibody (pAb)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA59934	Rabbit	Human, Mouse	Western Blot, Immunofluorescence, Immunocytochemistry, Chromatin Immunoprecipitation, Immunoprecipitation, Chromatin Immunoprecipitation, Immunoprecipitation

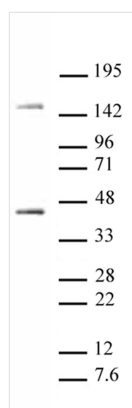
PRODUCT SYNONYMS

Oct-4; Polyclonal Antibody; Oct-4 antibody (pAb); POU5F1; OCT3; OTF3; OTF4; OTF-3; Oct-3; anti-Oct-4 antibody

PRODUCT SPECIFICATIONS

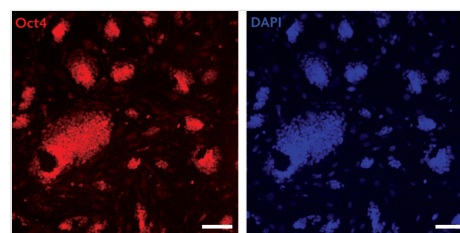
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Purity/Purification	Affinity Purified
Form/Format	Purified IgG in 70mM Tris (pH8), 105mM NaCl, 31mM glycine, 0.07mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.
Applicable Applications for anti-Oct-4 antibody	WB (Western Blot), IF (Immunofluorescence), ICC (Immunocytochemistry), ChIP (Chromatin immunoprecipitation), ChIP (Chromatin immunoprecipitation)
Immunogen	This Oct-4 antibody was raised against a peptide derived from human Oct-4.
Preparation and Storage	Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20 degree C for up to 2 years. Keep all reagents on ice when not in storage.1ug/ul

IMAGES



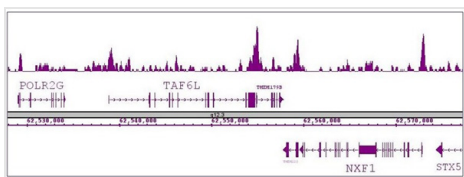
WB (Western Blot)

Oct-4 antibody tested by Western blot. Detection of Oct-4 by Western blot. P19 cell nuclear extract (25 ug) probed with Oct-4 antibody (pab) (1:1,000 dilution).



IF (Immunofluorescence)

Oct-4 antibody (pAb) tested by Immunofluorescence Mouse embryonic stem cells (mESCs) grown on mouse embryonic fibroblast feeder cells (MEFs) were fixed with 4% paraformaldehyde for 10 minutes at room temperature. Cells were then permeabilized and blocked by incubating with Blocking Solution containing 5% serum/0.1% Triton X-100 in D-PBS for 2 hours at room temperature. Cells were then incubated with Oct-4 antibody at 1:200 dilution overnight at 4 degree C, washed with D-PBS, and incubated for 2 hours at room temperature with goat anti-mouse Cy3 secondary antibody at 1:250 dilution. Nuclei were stained with DAPI (blue). Cells were visualized using a Zeiss fluorescent microscope at 20X magnification. Images show that Oct-4 antibody specifically stains mESC colonies and does not stain MEFs. Absence of Oct-4 staining in a subset of cells within the colonies suggests differentiation. Scale bars, 100 ?m.



ChIP (Chromatin Immunoprecipitation)

Oct-4 antibody (pAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 30 ug of chromatin from undifferentiated hESC cells and 7 ul of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 11 million sequence tags were mapped to identify Oct-4 binding sites. The image shows binding across a region of chromosome 11. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, [here](#).

ADDITIONAL INFORMATION

Related Product Information for anti-Oct-4 antibody	Short Description: Our Oct-4 antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, Immunocytochemistry, Immunofluorescence and Western blot; it has been shown to react with Human and Mouse samples. Background: Oct-4 (Octamer binding protein-4, POU5F1) is a member of the POU family of transcriptional activators. Oct-4 is critical for early embryogenesis and required for embryonic stem cell pluripotency. Oct-4 is expressed at high levels in undifferentiated cells and ectopic expression of Oct-4 (and several other transcription factors) can induce pluripotency in differentiated cells.
Product Categories/Family for anti-Oct-4 antibody	Primary Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	42560248
NCBI GeneID	5460
NCBI Accession #	NP_002692 ; AB_2793350
NCBI GenBank Nucleotide #	NM_002701.5
UniProt Accession #	Q01860 ; P31359 ; Q15167 ; Q15168 ; Q16422 ; Q5STF3 ; Q5STF4 ; A6NCS1 ; A6NLL8 ; D2IYK4
Molecular Weight	30,085 Da
NCBI Official Full Name	POU domain, class 5, transcription factor 1 isoform 1
NCBI Official Synonym Full Names	POU class 5 homeobox 1
NCBI Official Symbol	POU5F1
NCBI Official Synonym Symbols	OCT3; OCT4; OTF3; OTF4; OTF-3; Oct-3; Oct-4
NCBI Protein Information	POU domain, class 5, transcription factor 1; octamer-binding protein 3; octamer-binding protein 4; POU domain transcription factor OCT4; octamer-binding transcription factor 3; POU-type homeodomain-containing DNA-binding protein
UniProt Protein Name	POU domain, class 5, transcription factor 1
UniProt Gene Name	POU5F1
UniProt Synonym Gene Names	OCT3; OCT4; OTF3; Oct-3; Oct-4; OTF-3
UniProt Entry Name	PO5F1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

