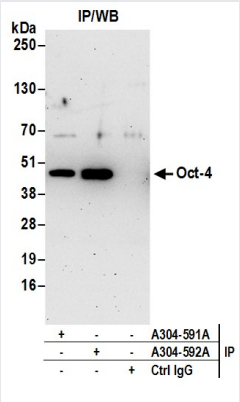
OCT-4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Oct-4, Polyclonal Antibody
Full Product Name	Rabbit anti-Oct-4 Antibody, Affinity Purified
Product Gene Name	anti-Oct-4 antibody
Product Synonym Gene Name	Pou5f1
Product Synonym Names	Otf3; POU domain, class 5, transcription factor 1; POU domain class 5 transcription factor 1 transcript variant 3 oct4b; POU domain class 5 transcription factor 1 transcript variant 2 oct4b'; Otf-4; Otf4; Otf3-rs7; Otf-3; octamer-binding transcription factor 4 alternative; NF-A3; octamer-binding protein 4; octamer-binding protein 3; Oct-4; Oct4; Oct-3/4; Oct3/4; Oct-3; Oct3; octamer-binding transcription factor 3; Otf3g; POU domain, class 5, transcription factor 1; POU domain, class 5, transcription factor 1
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Mouse
Form/Format	Liquid. Whole IgG. Tris-citrate/phosphate buffer, pH 7 to 8 containing 0.09% Sodium Azide
Purity/Purification	Antigen Affinity Purified
Concentration	1000ug/ml (lot specific)
Preparation and Storage	Store at 2-8 degree C Shelf Life: 1 year from date of receipt
Molecular Weight	38,216 Da
3D Structure	ModBase 3D Structure for P20263
Immunogen	Between 275 and 325
Conjugation	Unconjugated
Product Categories/Family for anti-Oct-4 antibody	Primary Antibodies
Applications Tested/Suitable for anti-Oct-4 antibody	Immunoprecipitation (IP)
Application Notes for anti-Oct-4 antibody	IP: 6ug/mg lysate
Related Product Information for anti-Oct-4 antibody	Oct-4 (Octamer-binding protein 4), also known as Oct 3/4, is a transcription factor that binds to the octamer motif (5'-ATTTGCAT-3'). Oct-4 forms a trimeric complex with SOX2 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. It is critical for early embryogenesis and for embryonic stem cell pluripotency [taken from the Universal Protein Resource (UniProt) www.uniprot.org/uniprot/P20263].
Other Notes	Small volumes of anti-Oct-4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Oct-4 purchase	MBS3904762 is an antibody targeting Oct-4. Also known as Rabbit anti-Oct-4 Antibody, Affinity Purified. Reactive in Mouse. Host: Rabbit.



Immunoprecipitation (IP) of anti-Oct-4 antibody
Detection of mouse Oct-4 by western blot of immunoprecipitates. Samples: Whole cell lysate (0.5 or 1.0 mg per IP reaction; 20% of IP loaded) from F9 cells prepared using NETN lysis buffer. Antibodies: Affinity purified rabbit anti-Oct-4 antibody MBS3904762 (lot MBS3904762-1) used for IP at 6 ug per reaction. Oct-4 was also immunoprecipitated by rabbit anti-Oct-4 antibody MBS3904761. For blotting immunoprecipitated Oct-4, MBS3904761 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Oct-4. It may not necessarily be applicable to this product.

NCBI GI #	125490392
NCBI GeneID	18999
NCBI Accession #	NP_038661.2
UniProt Primary Accession #	P20263
UniProt Secondary Accession #	Q63843
UniProt Related Accession #	P20263
GenBank Nucleotide #	NM_013633.3
NCBI Official Full Name	POU domain, class 5, transcription factor 1 isoform 1
NCBI Official Synonym Full Names	POU domain, class 5, transcription factor 1
NCBI Official Symbol	Pou5f1
NCBI Official Synonym Symbols	Oct3; Oct4; Otf3; Otf4; NF-A3; Oct-3; Oct-4; Otf-3; Otf-4; Otf3g; Oct3/4; Oct-3/4; Otf3-rs7
UniProt Protein Name	POU domain, class 5, transcription factor 1
UniProt Synonym Protein Names	NF-A3; Octamer-binding protein 3; Oct-3; Octamer-binding protein 4; Oct-4; Octamer-binding transcription factor 3; OTF-3
Protein Family	POU domain, class 5, transcription factor
UniProt Gene Name	Pou5f1
UniProt Synonym Gene Names	Oct-3; Oct-4; Otf-3; Otf3; Oct-3; Oct-4; OTF-3
UniProt Entry Name	PO5F1_MOUSE
NCBI Protein Information	POU domain, class 5, transcription factor 1
NCBI Summary for Oct-4	The protein encoded by this gene belongs to the POU domain family of transcription factors. POU domain transcription factors bind to a specific octamer DNA motif and regulate cell type-specific differentiation pathways. The encoded protein plays a key role in embryonic development and stem cell pluripotency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

UniProt Comments for Oct-4	Oct4: Transcription factor that binds to the octamer motif (5'-ATTTGCAT-3'). Forms a trimeric complex with SOX2 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell pluripotency. Interacts with UBE2I and ZSCAN10. Interacts with PKM2. Interacts with WWP2. Transcriptional activity is positively regulated by PKM2. Expressed in developing brain. Highest levels found in specific cell layers of the cortex, the olfactory bulb, the hippocampus and the cerebellum. Low levels of expression in adult tissues. Belongs to the POU transcription factor family. Class- 5 subfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Transcription factor; DNA-binding Cellular Component: cytoplasm; cytosol; nuclear chromatin; nucleolus; nucleoplasm; nucleus; transcription factor complex; transcriptional repressor complex Molecular Function: chromatin binding; chromatin DNA binding; cytokine binding; DNA binding; miRNA binding; protein binding; protein heterodimerization activity; sequence-specific DNA binding; transcription corepressor activity; transcription factor activity; transcription factor binding; ubiquitin protein ligase binding Biological Process: blastocyst growth; cell fate commitment; ectodermal cell fate commitment; endodermal cell fate commitment; endodermal cell fate specification; germ-line stem cell maintenance; mesodermal cell fate commitment; mRNA transcription from RNA polymerase II promoter; multicellular organismal development; negative regulation of calcium ion-dependent exocytosis; negative regulation of cell differentiation; negative regulation of protein kinase B signaling cascade; negative regulation of transcription from RNA polymerase II promoter; negative regulation of transcription, DNA-dependent; positive regulation of protein kinase B signaling cascade; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription, DNA-dependent; regulation of gene expression; regulation of transcription, DNA-dependent; response to organic substance; response to retinoic acid; somatic stem cell maintenance; stem cell differentiation; stem cell maintenance; transcription from RNA polymerase II promoter; transcription, DNA-dependent; trophectodermal cell differentiation
Research Articles on Oct-4	**1.** findings demonstrate that chromatin organization and transcriptional programs are intimately connected in ESCs and that the dynamic positioning of the Oct4 alleles is associated with the transition from pluripotency to lineage specification.
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