

**Oct4 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1499a**

**Specification**

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**Oct4 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O01860</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>45kDa KDa</b>

**Description**

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. (provided by RefSeq). Tissue specificity: 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.

**Immunogen**

Synthesized peptide of human Oct4.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**Oct4 Antibody - Additional Information**

**Gene ID** 5460

**Other Names**

POU domain, class 5, transcription factor 1, Octamer-binding protein 3, Oct-3, Octamer-binding protein 4, Oct-4, Octamer-binding transcription factor 3, OTF-3, POU5F1, OCT3, OCT4, OTF3

**Dilution**

WB~~1/500 - 1/2000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Oct4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Oct4 Antibody - Protein Information

**Name** POU5F1

**Synonyms** OCT3, OCT4, OTF3

### Function

Transcription factor that binds to the octamer motif (5'- ATTTGCAT-3'). Forms a trimeric complex with SOX2 or SOX15 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.

### Cellular Location

Cytoplasm. Nucleus. Note=Expressed in a diffuse and slightly punctuate pattern. Colocalizes with MAPK8 and MAPK9 in the nucleus. {ECO:0000250|UniProtKB:P20263, ECO:0000269|PubMed:18191611, ECO:0000269|PubMed:19274063, ECO:0000269|PubMed:23024368}

### Tissue Location

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.

## Oct4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Oct4 Antibody - Images

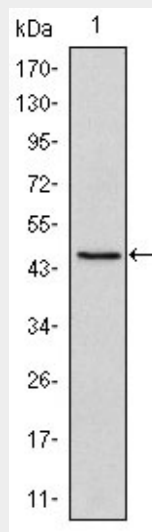


Figure 1: Western blot analysis using Oct4 mouse mAb against NTERA-2 cell lysate (1).

**Oct4 Antibody - References**

1. J Biol Chem. 2008 Dec 19;283(51):35825-33. 2. Dev Genes Evol. 2008 Oct;218(10):561-6. 3. Stem Cells. 2008 Sep;26(9):2419-24.