

**OCT4 (OCT3) Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2046A****Specification**

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**OCT4 (OCT3) Antibody (N-term) - Product Information**

Application	WB, IF, E
Primary Accession	<a href="#">Q01860</a>
Other Accession	<a href="#">NP_002692</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	38571
Antigen Region	1-30

**OCT4 (OCT3) Antibody (N-term) - 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

**Target/Specificity**

This OCT4 (OCT3) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human OCT4 (OCT3).

**Dilution**

WB~~1:1000

IF~~1:50~100

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

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

**Precautions**

OCT4 (OCT3) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**OCT4 (OCT3) Antibody (N-term) - 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}

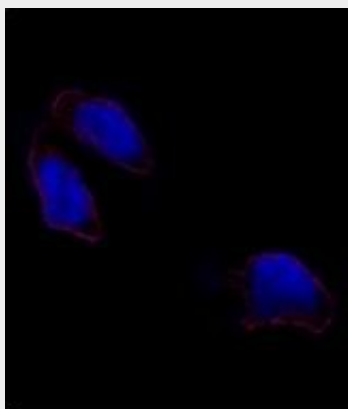
**Tissue Location**

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.

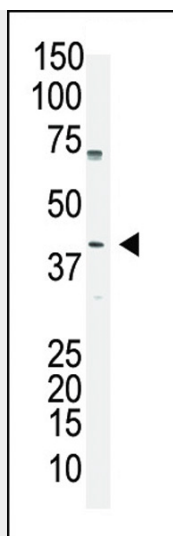
**OCT4 (OCT3) Antibody (N-term) - Protocols**

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 (OCT3) Antibody (N-term) - Images**

Immunofluorescence analysis of OCT3(OCT4) antibody (N-term) (Cat.#AP2046a) in HeLa cells. 0.025 mg/ml primary antibody was followed by Alexa-Fluor-546-conjugated donkey anti-rabbit IgG (H+L). Alexa-Fluor-546 emits orange fluorescence. Blue counterstaining is DAPI.



The anti-OCT4 (OCT3) (N-term) Pab (Cat. #AP2046a) is used in Western blot to detect OCT4 (OCT3) in A375 cell lysate.

#### **OCT4 (OCT3) Antibody (N-term) - Background**

Transcription factors containing the POU homeodomain have been shown to be important regulators of tissue-specific gene expression in lymphoid and pituitary differentiation and in early mammalian development. Two forms of OCT3 mRNA are expressed in adult tissues as a result of alternative splicing--OCT3A and OCT3B. Reverse transcriptase PCR showed low level of expression in both OCT3A and OCT3B mRNA in all adult human tissues examined. Oct3 is present in mouse oocytes before and after fertilization. When fertilized oocytes were injected with antisense Oct3 oligonucleotides or double-stranded DNA containing the octamer motif, embryonic DNA synthesis was inhibited and the embryos were arrested at the one-cell stage.

#### **OCT4 (OCT3) Antibody (N-term) - References**

Looijenga, L.H., et al., Cancer Res. 63(9):2244-2250 (2003). Remenyi, A., et al., Genes Dev. 17(16):2048-2059 (2003). Nichols, J., et al., Cell 95(3):379-391 (1998). Crouau-Roy, B., et al., Genomics 21(1):241-243 (1994). Takeda, J., et al., Nucleic Acids Res. 20(17):4613-4620 (1992).