

OCT4 (OCT3) Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11315**Specification**

OCT4 (OCT3) Antibody - Product Information

Application	WB, IF
Primary Accession	Q01860
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	38571

OCT4 (OCT3) Antibody - Additional Information**Gene ID** 5460

Positive Control	Western blot: HL-60 cell lysate, IF: Sy5Y cells
Application & Usage	Western blot: ~1:1000, IF: ~1:10-1:50.

Other Names

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

Target/Specificity

Oct4/Oct3

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

Supplied in PBS with 0.09% (W/V) sodium azide.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

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

OCT4 (OCT3) 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 (OCT3) 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 (OCT3) Antibody - Images

OCT4 (OCT3) Antibody - Background

Oct-4 (POU5F1) is a transcription factor highly expressed in undifferentiated embryonic stem cells and embryonic germ cells. A network of key factors that includes Oct-4, Nanog, and Sox2 is necessary for the maintenance of pluripotent potential, and downregulation of Oct-4 has been shown to trigger cell differentiation. Research studies have demonstrated that Oct-4 is a useful germ cell tumor marker. Oct-4 exists as two splice variants, Oct-4A and Oct-4B. Recent studies have suggested that the Oct-4A isoform has the ability to confer and sustain pluripotency, while Oct-4B may exist in some somatic, non-pluripotent cells.