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OCT3/4 Antibody (C279)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11546a

Specification

OCT3/4 Antibody (C279) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q01860
Other Accession	Q06416, NP_002692.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**38571**
Antigen Region	**265-297**

OCT3/4 Antibody (C279) - 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 OCT3/4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 265-297 amino acids from human OCT3/4.

Dilution
WB~~1:1000
IHC-P~~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
OCT3/4 Antibody (C279) is for research use only and not for use in diagnostic or therapeutic procedures.

OCT3/4 Antibody (C279) - 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}

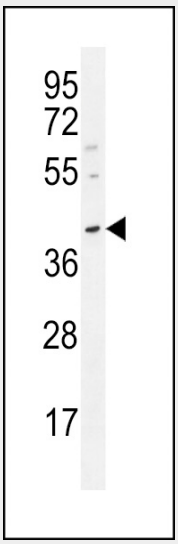
Tissue Location
Expressed in developing brain. Highest levels found in specific cell layers of the cortex, the olfactory bulb, the hippocampus and the cerebellum. Low levels of expression in adult tissues.

OCT3/4 Antibody (C279) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

OCT3/4 Antibody (C279) - Images



OCT3/4 Antibody (C279) (Cat. #AP11546a) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the OCT3/4 antibody detected the OCT3/4 protein (arrow).

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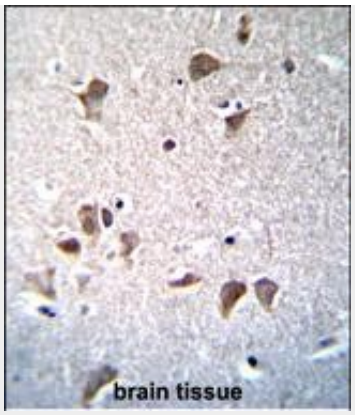

OCT3/4 Antibody (C279) (Cat. #AP11546a)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of OCT3/4 Antibody (C279) for immunohistochemistry. Clinical relevance has not been evaluated.

OCT3/4 Antibody (C279) - Background

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.

OCT3/4 Antibody (C279) - References

Abu-Remaileh, M., et al. EMBO J. 29(19):3236-3248(2010)
Ucisik-Akkaya, E., et al. Mol. Hum. Reprod. 16(10):770-777(2010)
Schultz, S.S., et al. Mol. Cell. Biol. 30(18):4521-4534(2010)
Kim, S., et al. Br. J. Cancer 102(2):436-446(2010)
Wang, X., et al. Stem Cells 27(6):1265-1275(2009)