

Anti-Oct4 antibody ab74538

[1 References](#) [1 Image](#)

Overview

Product name	Anti-Oct4 antibody
Description	Rabbit polyclonal to Oct4
Host species	Rabbit
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Oct4 aa 250-350 (internal sequence). The exact sequence is proprietary. Database link: Q01860
Positive control	Human Seminoma tissue.
General notes	<p>This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab74538 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		

Application notes

IHC-P: 1/50 for 30 min at RT.

Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

Function

Transcription factor that binds to the octamer motif (5'-ATTGTCAT-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.

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.

Sequence similarities

Belongs to the POU transcription factor family. Class-5 subfamily.

Contains 1 homeobox DNA-binding domain.

Contains 1 POU-specific domain.

Developmental stage

Highly expressed in undifferentiated embryonic stem cells and expression decreases gradually after embryoid body (EB) formation.

Domain

The POU-specific domain mediates interaction with PKM2.

Post-translational modifications

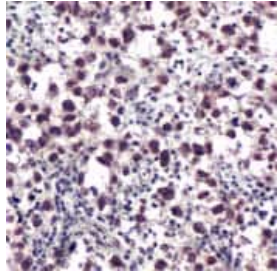
Sumoylation enhances the protein stability, DNA binding and transactivation activity. Sumoylation is required for enhanced YES1 expression.

Ubiquitinated; undergoes 'Lys-63'-linked polyubiquitination by WWP2 leading to proteasomal degradation.

Cellular localization

Nucleus. Expressed in a diffuse and slightly punctuate pattern.

Images



ab74538, at 1:50 dilution, staining Oct4 in Human Seminoma by Immunohistochemistry using formalin-fixed, paraffin-embedded tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody (ab74538)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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