


Product datasheet

Anti-Oct4 antibody [GT486] ab184665

★★★★★ [2 Abreviews](#) [23 References](#) [8 Images](#)

Overview

Product name	Anti-Oct4 antibody [GT486]
Description	Mouse monoclonal [GT486] to Oct4
Host species	Mouse
Tested applications	Suitable for: ICC/IF, Flow Cyt, IP, WB, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Chimpanzee 
Immunogen	Recombinant fragment within Human Oct4 aa 1-182. The exact sequence is proprietary. Database link: Q01860
Positive control	Oct4 transfected 293T and HeLa cells; NT2D1 whole cell lysates; mouse and Human ESC whole cell lysates; Human embryonic stem cells and BT483 xenograft tissue.
General notes	<p>This product was changed from ascites to tissue culture supernatant on 17th September 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Constituents: 80% PBS, 20% Glycerol (glycerin, glycerine)
Purity	Protein G purified
Purification notes	Purified from TCS

Clonality	Monoclonal
Clone number	GT486
Isotype	IgG2b

Applications

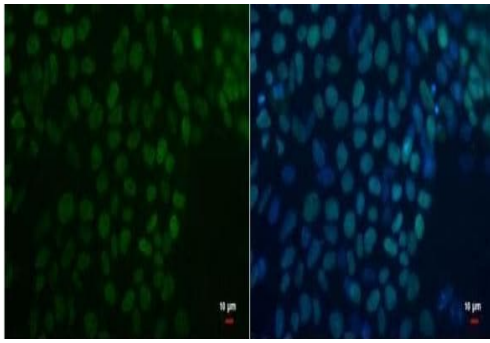
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab184665 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	1/100 - 1/1000.
Flow Cyt		1/50. ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.
IP		1/100 - 1/500.
WB		1/500 - 1/3000. Predicted molecular weight: 39 kDa.
IHC-P		1/100 - 1/1000.

Target

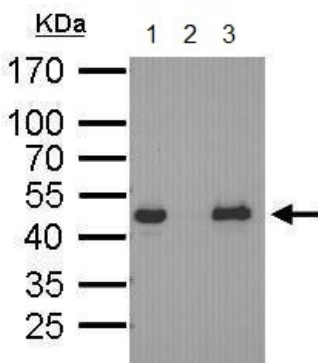
Function	Transcription factor that binds to the octamer motif (5'-ATTTGCAT-3'). Forms a trimeric complex with SOX2 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell 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



Immunocytochemistry/ Immunofluorescence - Anti-Oct4 antibody [GT486] (ab184665)

Immunofluorescence analysis of 4% paraformaldehyde-fixed Human embryonic stem cells labeling Oct4 with ab184665 at 1/200 dilution (green). Hoechst 33342 staining is shown in blue.



Immunoprecipitation - Anti-Oct4 antibody [GT486] (ab184665)

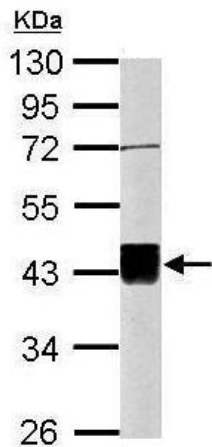
Immunoprecipitation of Oct4 transfected 293T cell lysate followed by detection of Oct4 with ab184665 at 1/1000 dilution.

Lane 1; Cell lysate/extract of transfected 293T cells.

Lane 2; Cell lysate/extract of transfected 293T cells precipitated with 2 µg of preimmune mouse IgG (control)

Lane 3; Cell lysate/extract of transfected 293T cells precipitated using 2 µg of ab184665.

Detection utilised anti-mouse IgG. Samples analysed by 12% SDS-PAGE.

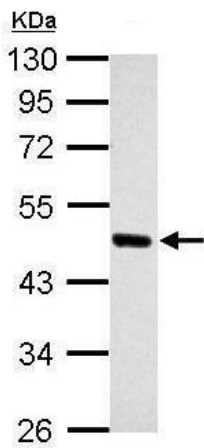


Western blot - Anti-Oct4 antibody [GT486] (ab184665)

Anti-Oct4 antibody [GT486] (ab184665) at 1/1000 dilution + Mouse ESC whole cell lysate at 20 µg

Predicted band size: 39 kDa

10% SDS PAGE

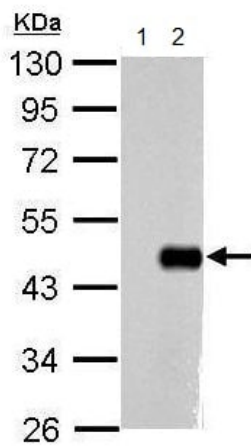


Western blot - Anti-Oct4 antibody [GT486]
(ab184665)

Anti-Oct4 antibody [GT486] (ab184665) at 1/1000 dilution + NT2D1 whole cell lysate at 30 µg

Predicted band size: 39 kDa

10% SDS PAGE



Western blot - Anti-Oct4 antibody [GT486]
(ab184665)

All lanes : Anti-Oct4 antibody [GT486] (ab184665) at 1/1000 dilution

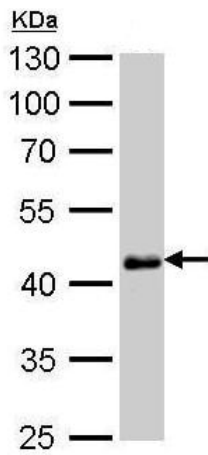
Lane 1 : Non-transfected HeLa whole cell lysates

Lane 2 : OCT3/4 transfected HeLa whole cell lysates

Lysates/proteins at 10 µg per lane.

Predicted band size: 39 kDa

10% SDS PAGE

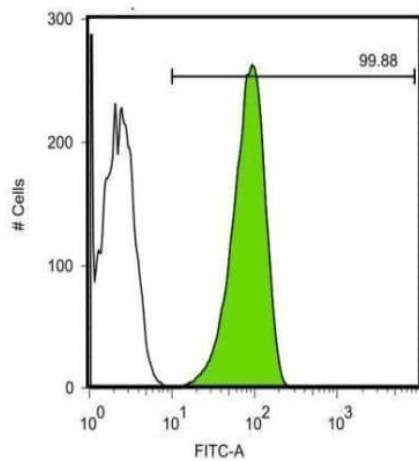


Western blot - Anti-Oct4 antibody [GT486]
(ab184665)

Anti-Oct4 antibody [GT486] (ab184665) at 1/1000 dilution + Human ESC whole cell lysate/extract at 30 µg

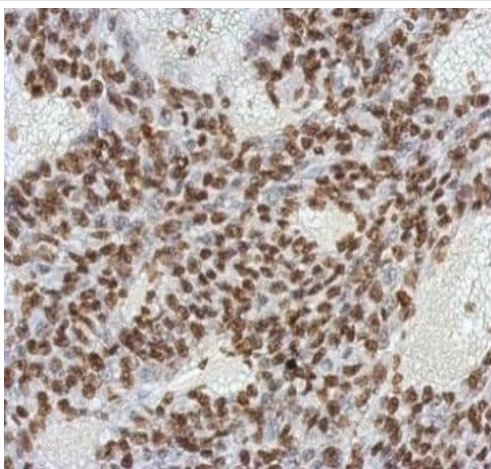
Predicted band size: 39 kDa

10 % SDS-PAGE



Flow Cytometry - Anti-Oct4 antibody [GT486]
(ab184665)

Flow cytometric analysis of Human embryonic stem cells labeling Oct4 with ab184665 at 1/50 dilution (green). The isotype control was at 1/50 dilution (Black).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [GT486]
(ab184665)

Immunohistochemical analysis of paraffin-embedded BT483 (human) xenograft tissue labeling Oct4 with ab184665 at 1/200 dilution.

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