

## Product datasheet

# Anti-Oct4 antibody [EPR17980] (Alexa Fluor® 488) ab208907

Recombinant RabMAb

1 Image

### Overview

<b>Product name</b>	Anti-Oct4 antibody [EPR17980] (Alexa Fluor® 488)
<b>Description</b>	Rabbit monoclonal [EPR17980] to Oct4 (Alexa Fluor® 488)
<b>Host species</b>	Rabbit
<b>Conjugation</b>	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse <b>Predicted to work with:</b> Human 
<b>Immunogen</b>	Recombinant fragment within Human Oct4 aa 1-150. The exact sequence is proprietary. Database link: <a href="#">Q01860</a>
<b>Positive control</b>	ICC/IF: mouse Embryonic Stem cells
<b>General notes</b>	<p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb® patents</a>.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C. Store In the Dark.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 1% BSA, 30% Glycerol, PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR17980
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab208907** in the following tested applications.

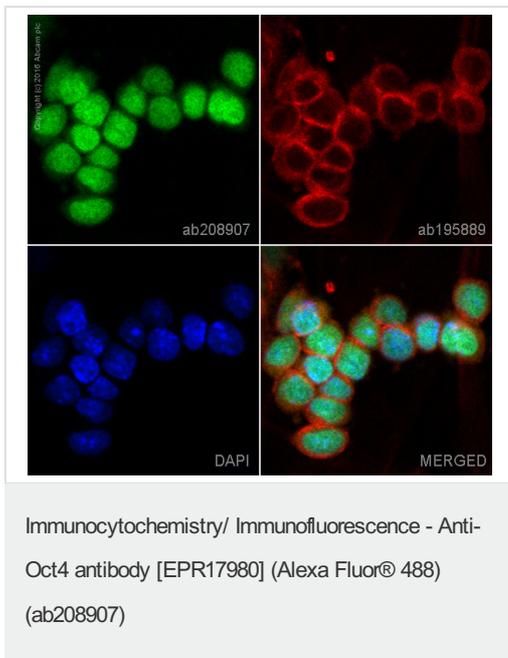
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100. This product gave a positive signal in mouse Embryonic Stem cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min)

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	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.
<b>Sequence similarities</b>	Belongs to the POU transcription factor family. Class-5 subfamily. Contains 1 homeobox DNA-binding domain. Contains 1 POU-specific domain.
<b>Developmental stage</b>	Highly expressed in undifferentiated embryonic stem cells and expression decreases gradually after embryoid body (EB) formation.
<b>Domain</b>	The POU-specific domain mediates interaction with PKM2.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Nucleus. Expressed in a diffuse and slightly punctuate pattern.

## Images



ab208907 staining Oct4 in mouse Embryonic Stem cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab208907 at 1/100 dilution (shown in green) and [ab195889](#), Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (**pseudocolored in red**). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in mouse Embryonic Stem cells fixed with 4% formaldehyde (10 min).

Immunocytochemistry/ Immunofluorescence - Anti-Oct4 antibody [EPR17980] (Alexa Fluor® 488) (ab208907)

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

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