

### Anti-Oct4 antibody [EPR2054] - BSA and Azide free ab222233

**重组** RabMAb

**4 References**   **14 图像**

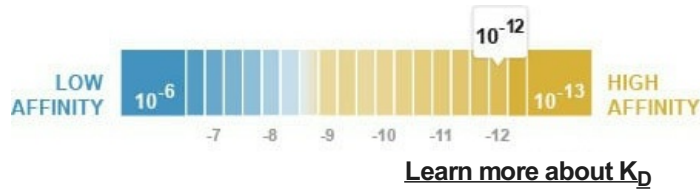
#### 概述

产品名称	Anti-Oct4抗体[EPR2054] - BSA and Azide free
描述	兔单克隆抗体[EPR2054] to Oct4 - BSA and Azide free
宿主	Rabbit
经测试应用	<b>适用于:</b> IP, WB, IHC-P, ChIC/CUT&RUN-seq <b>不适用于:</b> ICC/IF
种属反应性	<b>与反应:</b> Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: NCCIT and HeLa whole cell lysate ( <a href="#">ab150035</a> ). IHC-P: Human seminoma and ovarian dysgerminoma tissue. IP: NCCIT whole cell lysate. ChIC/CUT&RUN-Seq: NCCIT cells.
常规说明	<p>ab222233 is the carrier-free version of <a href="#">ab109183</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with</p>

these species. Please contact us for more information.

## 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
解离常数 ( $K_D$ )	$K_D = 5.00 \times 10^{-12}$ M



存储溶液	pH: 7.20 Constituent: PBS
无载体	是
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR2054
同种型	IgG

## 应用

**The Abpromise guarantee** Abpromise™ 承诺保证使用 ab222233 于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度; 实际最佳的稀释度/浓度应由使用者检定。

应用	Ab 评论	说明
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 39 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ChIC/CUT&RUN-seq		Use at an assay dependent concentration.

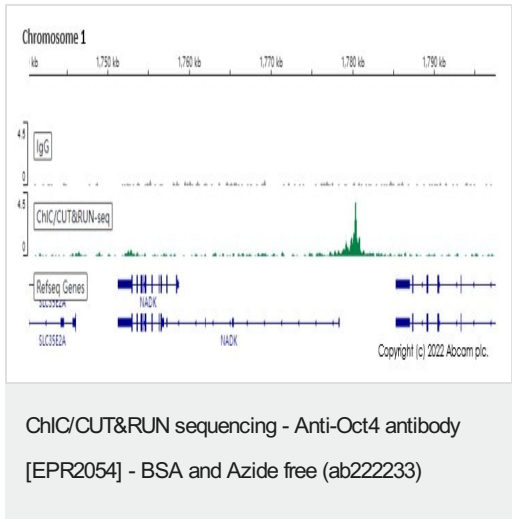
应用说明	Is unsuitable for ICC/IF.
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## 靶标

功能	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.
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组织特异性	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.
序列相似性	<p>Belongs to the POU transcription factor family. Class-5 subfamily.</p> <p>Contains 1 homeobox DNA-binding domain.</p> <p>Contains 1 POU-specific domain.</p>
发展阶段	Highly expressed in undifferentiated embryonic stem cells and expression decreases gradually after embryoid body (EB) formation.
结构域	The POU-specific domain mediates interaction with PKM2.
翻译后修饰	<p>Sumoylation enhances the protein stability, DNA binding and transactivation activity. Sumoylation is required for enhanced YES1 expression.</p> <p>Ubiquitinated; undergoes 'Lys-63'-linked polyubiquitination by WWP2 leading to proteasomal degradation.</p>
细胞定位	Nucleus. Expressed in a diffuse and slightly punctuate pattern.

图片

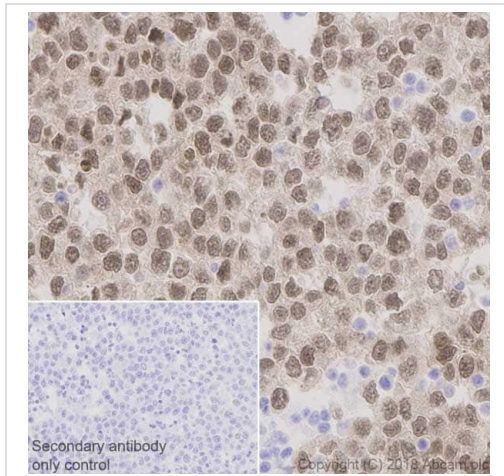


ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/mL, 2 x 10<sup>5</sup> NCCIT (Human pluripotent embryonic carcinoma cell line) cells and 5 µg of [ab109183](#) [EPR2054]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control [ab172730](#) is also shown.

Additional screenshots of mapped reads can be downloaded [here](#).

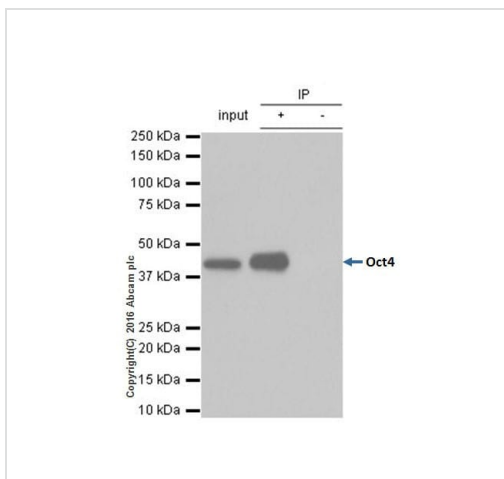
The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab109183](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human seminoma tissue sections labeling Oct4 - with Purified **ab109183** at 1:600 dilution (1 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0) ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).



Immunoprecipitation - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** at 1/50 immunoprecipitating Oct4 in NCCIT (human pluripotent embryonal carcinoma) whole cell lysate observed at 39 KDa (lanes 1 and 2).

Lane 1 (input): NCCIT whole cell lysate, 10µg

Lane 2 (+): **ab109183** + NCCIT whole cell lysate

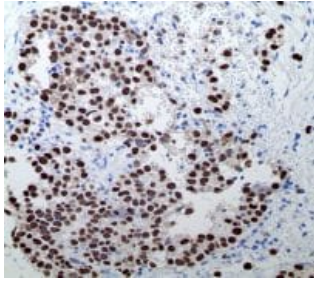
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab109183** in NCCIT whole cell lysate

For western blotting, **ab109183** at 1/1000 dilution and **ab131366** VeriBlot for IP (HRP) was used for detection antibody at 1/10000 dilution.

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

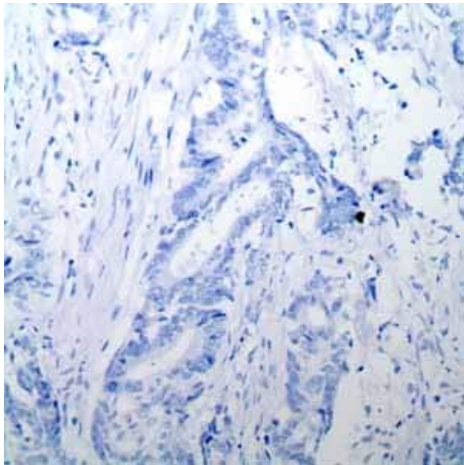


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183**, at 1:500 dilution, staining Oct4 in paraffin-embedded Human ovarian dysgerminoma by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

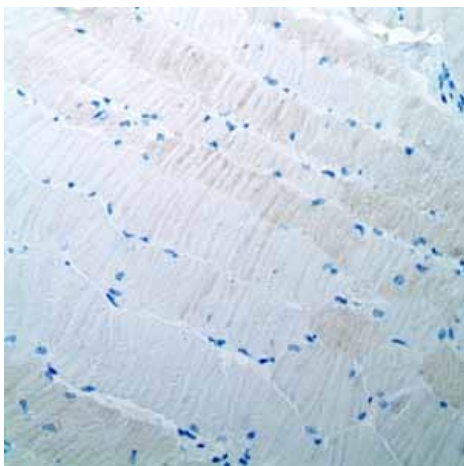


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing negative staining in Colonic adenocarcinoma tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



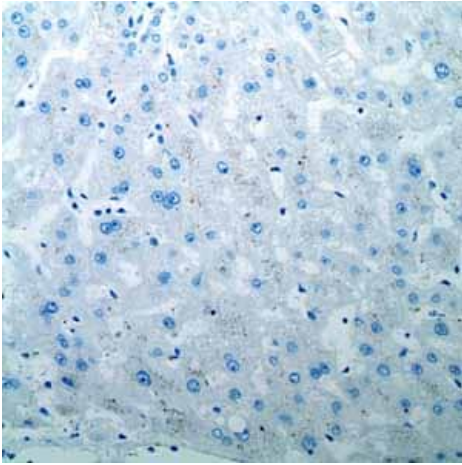
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing negative staining in Skeletal muscle tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



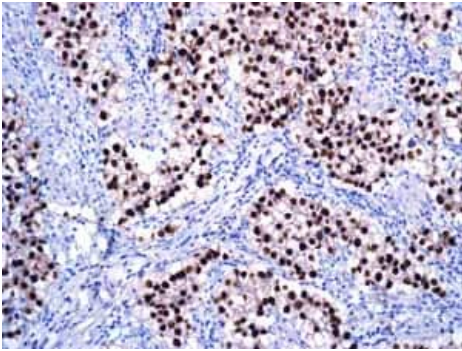


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing negative staining in Normal liver tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

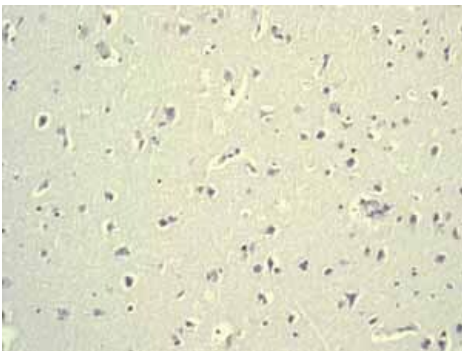


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing positive staining in Seminoma tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

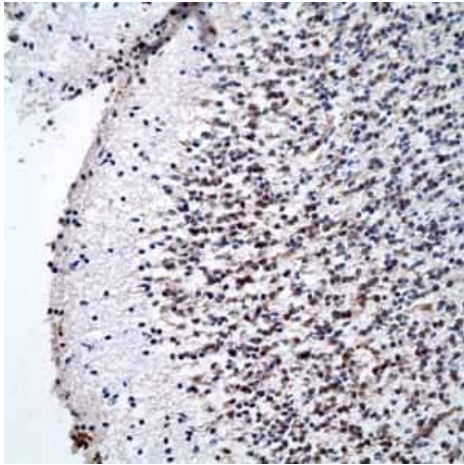


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing negative staining in Normal brain tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

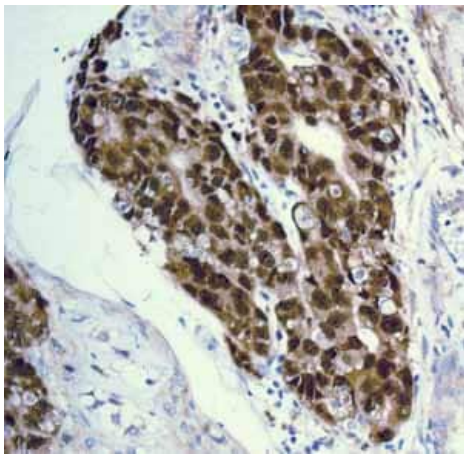


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing positive staining in Fetal brain tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

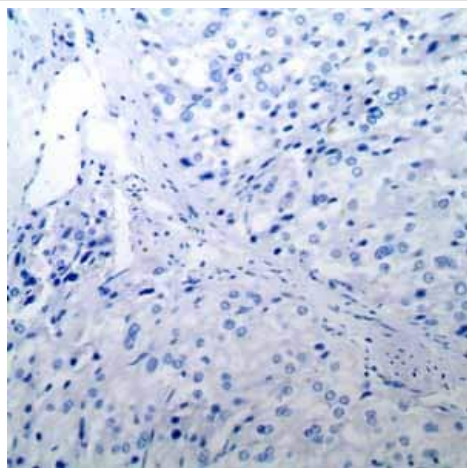


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing positive staining in Embryonal carcinoma tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

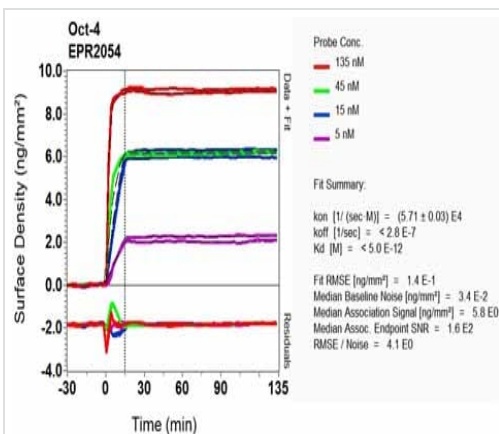


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Oct4 antibody [EPR2054]  
- BSA and Azide free (ab222233)

Unpurified **ab109183** showing negative staining in Hepatocellular carcinoma tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Oct-4 SPR sensorgram - Anti-Oct4 antibody [EPR2054] -  
BSA and Azide free (ab222233)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109183**).

Why choose a recombinant antibody?



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Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
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**Ethical standards compliant**  
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Anti-Oct4 antibody [EPR2054] - BSA and Azide free (ab222233)



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