

## Product datasheet

### Anti-SOX2 antibody [SOX2/1792] $\alpha$ b218521

6 Images

#### Overview

<b>Product name</b>	Anti-SOX2 antibody [SOX2/1792]
<b>Description</b>	Mouse monoclonal [SOX2/1792] to SOX2
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, Protein Array, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Recombinant fragment within Human SOX2 aa 176-305. The exact sequence is proprietary. Database link: <a href="#">P48431</a>
<b>Positive control</b>	IHC-P: Human cervical and human lung carcinoma tissues. Mouse stomach and intestine tissues. WB: NCCIT Cell Lysate
<b>General notes</b>	<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&amp;As</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 long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 0.05% BSA, 99% PBS
<b>Purity</b>	Protein A/G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	SOX2/1792
<b>Isotype</b>	IgG2b
<b>Light chain type</b>	kappa

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab218521 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
WB		Use a concentration of 1 - 2 µg/ml. Predicted molecular weight: 34 kDa.
Protein Array		Use at an assay dependent concentration.
IHC-P		Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## Target

### Function

Transcription factor that forms a trimeric complex with OCT4 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206 (By similarity). Critical for early embryogenesis and for embryonic stem cell pluripotency.

### Involvement in disease

Defects in SOX2 are the cause of microphthalmia syndromic type 3 (MCOPS3) [MIM:206900]. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues (anophthalmia). In many cases, microphthalmia/anophthalmia occurs in association with syndromes that include non-ocular abnormalities. MCOPS3 is characterized by the rare association of malformations including uni- or bilateral anophthalmia or microphthalmia, and esophageal atresia with trachoesophageal fistula.

### Sequence similarities

Contains 1 HMG box DNA-binding domain.

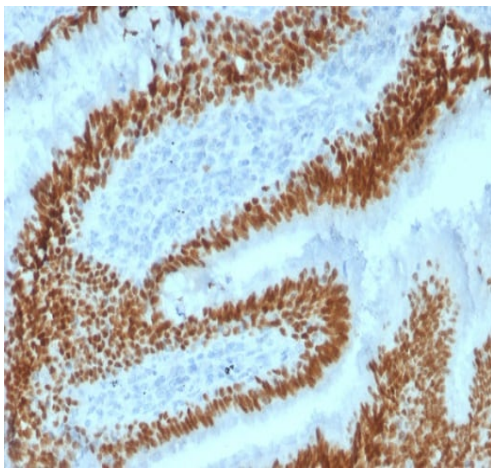
### Post-translational modifications

Sumoylation inhibits binding on DNA and negatively regulates the FGF4 transactivation.

### Cellular localization

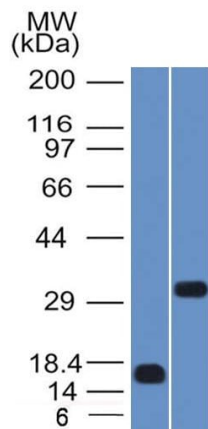
Nucleus.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX2 antibody [SOX2/1792] (ab218521)

Immunohistochemical analysis of formalin-fixed and paraffin-embedded Human lungcarcinoma tissue labeling SOX2 with ab218521.



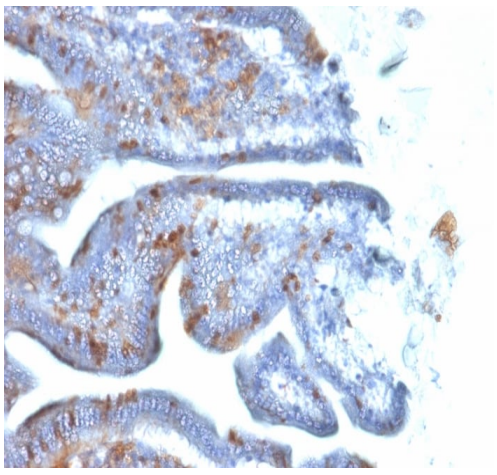
Western blot - Anti-SOX2 antibody [SOX2/1792] (ab218521)

**All lanes :** Anti-SOX2 antibody [SOX2/1792] (ab218521)

**Lane 1 :** Recombinant SOX2 protein fragment

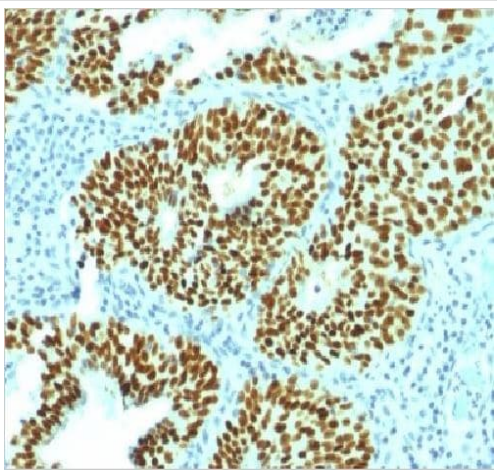
**Lane 2 :** NCCIT (human pluripotent embryonic carcinoma cell line) cell lysate

**Predicted band size:** 34 kDa



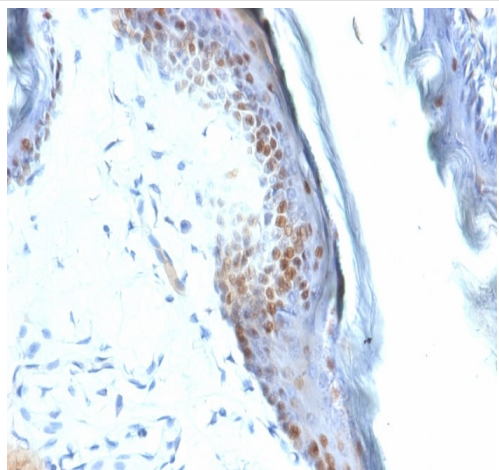
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX2 antibody  
[SOX2/1792] (ab218521)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse intestine tissue labeling SOX2 with ab218521 at 2 µg/mL (30 minutes at room temperature). Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9 for 45 minutes at 95°C followed by cooling at room temperature for 20 minutes.



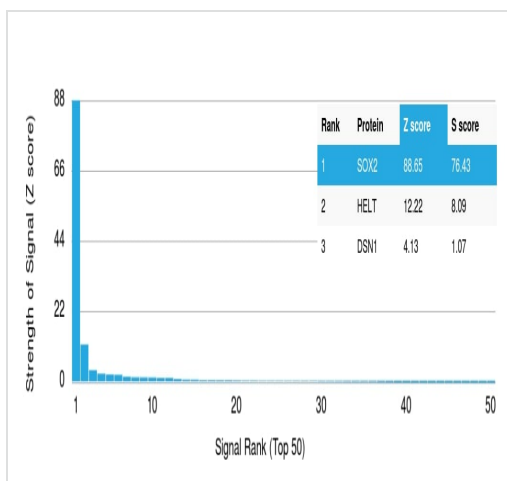
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX2 antibody  
[SOX2/1792] (ab218521)

Immunohistochemical analysis of formalin-fixed and paraffin-embedded Human cervical carcinoma tissue labeling SOX2 with ab218521 at 1 µg/ml.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX2 antibody  
[SOX2/1792] (ab218521)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse stomach tissue labeling SOX2 with ab218521 at 2 µg/mL (30 minutes at room temperature). Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9 for 45 minutes at 95°C followed by cooling at room temperature for 20 minutes.



Protein Array - Anti-SOX2 antibody [SOX2/1792]  
(ab218521)

ab218521 was tested in protein array against over 19000 different full-length human proteins.

**Z- and S- Score:** The Z-score represents the strength of a signal that a monoclonal antibody (MAB) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAB to its intended target.

A MAB is specific to its intended target if the MAB has an S-score of at least 2.5. For example, if a MAB binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAB to protein X is equal to 29.

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

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