

## Product datasheet

# Anti-SOX3 antibody ab183606

★★★★★ [1 Abreviews](#) [3 References](#) [6 Images](#)

### Overview

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|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-SOX3 antibody  |
| <b>Description</b>         | Rabbit polyclonal to SOX3   |
| <b>Host species</b>        | Rabbit  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB, ICC/IF, IP, IHC-P  |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Mouse, Rat, Human   |
| <b>Immunogen</b>           | Recombinant fragment within Human SOX3 aa 1-159. The exact sequence is proprietary.<br>Database link: <a href="#">P41225</a>  |
| <b>Positive control</b>    | WB: MCF7 whole cell lysate. IHC-P: Mouse and rat brain tissue ICC/IF: U-87 MG cells. IP: NT2D1  |
| <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

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|                             |   |
|-----------------------------|---|
| <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: 7.00<br>Preservative: 0.01% Thimerosal (merthiolate)<br>Constituents: 79.99% PBS, 20% Glycerol (glycerin, glycerine)          |
| <b>Purity</b>               | Immunogen affinity purified   |
| <b>Clonality</b>            | Polyclonal  |
| <b>Isotype</b>              | IgG   |

### Applications

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**The Abpromise guarantee**

Our **Abpromise guarantee** covers the use of ab183606 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          |           | 1/500 - 1/3000. Predicted molecular weight: 45 kDa. |
| ICC/IF      |           | 1/500.  |
| IP          |           | Use at an assay dependent concentration.            |
| IHC-P       |           | 1/200 - 1/500.                                      |

**Target****Function**

Transcription factor required during the formation of the hypothalamo-pituitary axis. May function as a switch in neuronal development. Keeps neural cells undifferentiated by counteracting the activity of proneural proteins and suppresses neuronal differentiation. Required also within the pharyngeal epithelia for craniofacial morphogenesis. Controls a genetic switch in male development. Is necessary for initiating male sex determination by directing the development of supporting cell precursors (pre-Sertoli cells) as Sertoli rather than granulosa cells.

**Involvement in disease**

Defects in SOX3 are a cause of panhypopituitarism X-linked (PHPX) [MIM:312000]. Affected individuals have absent infundibulum, anterior pituitary hypoplasia, and ectopic posterior pituitary. Defects in SOX3 are the cause of mental retardation X-linked with isolated growth hormone deficiency (MRXGH) [MIM:300123].

Defects in SOX3 are the cause of 46,XX sex reversal type 3 (SRXX3) [MIM:300833]. A condition in which male gonads develop in a genetic female (female to male sex reversal). Note=Copy number variations (CNV) encompassing or in close proximity to SOX3 are responsible for XX male reversal. These variations include two duplications of approximately 123 kb and 85 kb, the former of which spans the entire SOX3 gene; a 343 kb deletion immediately upstream of SOX3 that is probably responsible of altered regulation (and not increased dosage) of SOX3; a large (approximately 6 Mb) duplication that encompasses SOX3 and at least 18 additional distally located genes. Its proximal breakpoint falls within the SOX3 regulatory region. This large rearrangement has been found in a patient with XX male reversal and a complex phenotype that also includes a scrotal hypoplasia, microcephaly, developmental delay, and growth retardation.

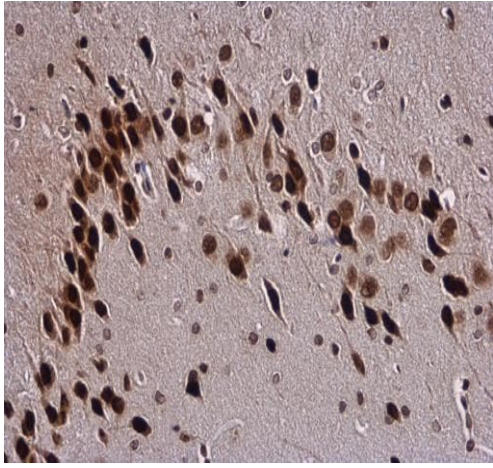
**Sequence similarities**

Contains 1 HMG box DNA-binding domain.

**Cellular localization**

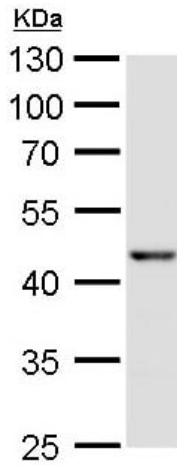
Nucleus.

**Images**



Immunohistochemical analysis of mouse brain tissue sections labeling SOX3 with ab183606 at 1/500. Sections were embedded in Paraffin.

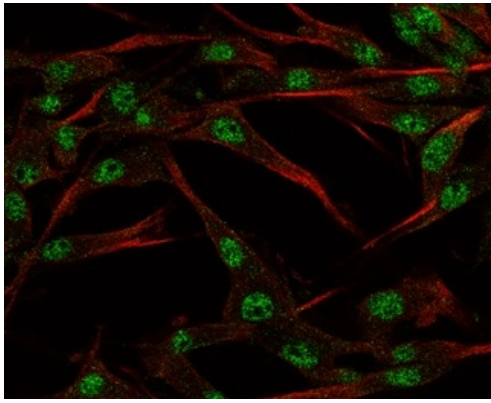
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX3 antibody (ab183606)



Anti-SOX3 antibody (ab183606) at 1/1000 dilution + MCF7 whole cell lysate at 30  $\mu$ g

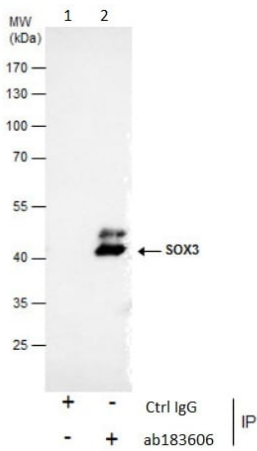
**Predicted band size: 45 kDa**

Western blot - Anti-SOX3 antibody (ab183606)



Immunocytochemistry/ Immunofluorescence - Anti-SOX3 antibody (ab183606)

Immunocytochemistry/ Immunofluorescence analysis of U-87 MG (human glioblastoma astrocytoma) cells labeling SOX3 with ab183606 at 1/500 (Green, nuclear expression). The cells were fixed with 4% paraformaldehyde at room temperature for 15 minutes. Beta tubulin 3 was counterstained with mouse monoclonal anti-Beta Tubulin 3 antibody (red).



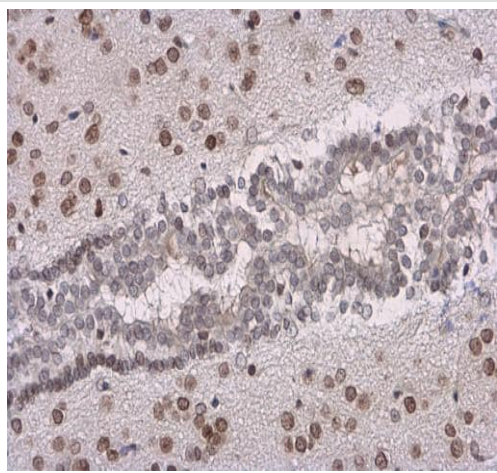
Immunoprecipitation - Anti-SOX3 antibody (ab183606)

ab183606 at 5 $\mu$ g immunoprecipitating SOX3 protein in NT2D1 (human embryonal carcinoma) whole cell lysate (lane 2).

Lane 1: NT2D1 whole cell lysate

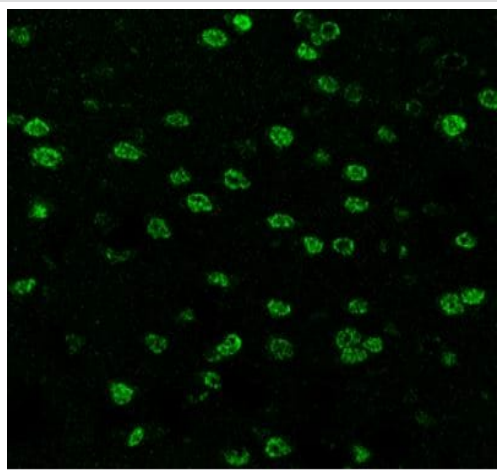
Lane 2: ab183606 + NT2D1 whole cell lysate

Western blot was performed using ab183606 followed by anti-rabbit IgG as the secondary antibody.



Immunohistochemical analysis of mouse brain tissue sections labeling SOX3 with ab183606 at 1/500. Sections were embedded in Paraffin.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX3 antibody (ab183606)



Immunohistochemical analysis of rat brain tissue sections labeling SOX3 with ab183606 at 1/200. A goat anti-rabbit IgG was used as the secondary antibody. Sections were embedded in Paraffin.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SOX3 antibody (ab183606)

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

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