

## PRODUCT DATASHEET

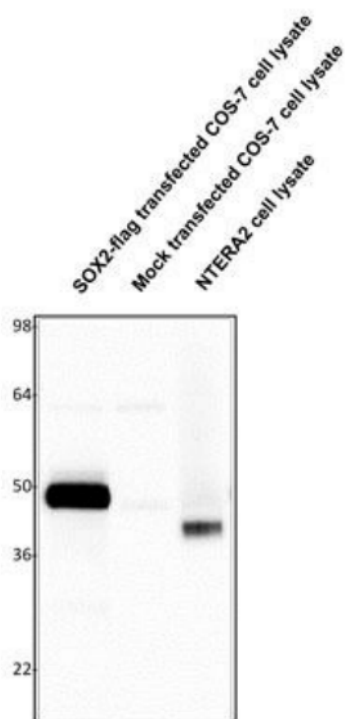
## Anti-SOX2 Antibody

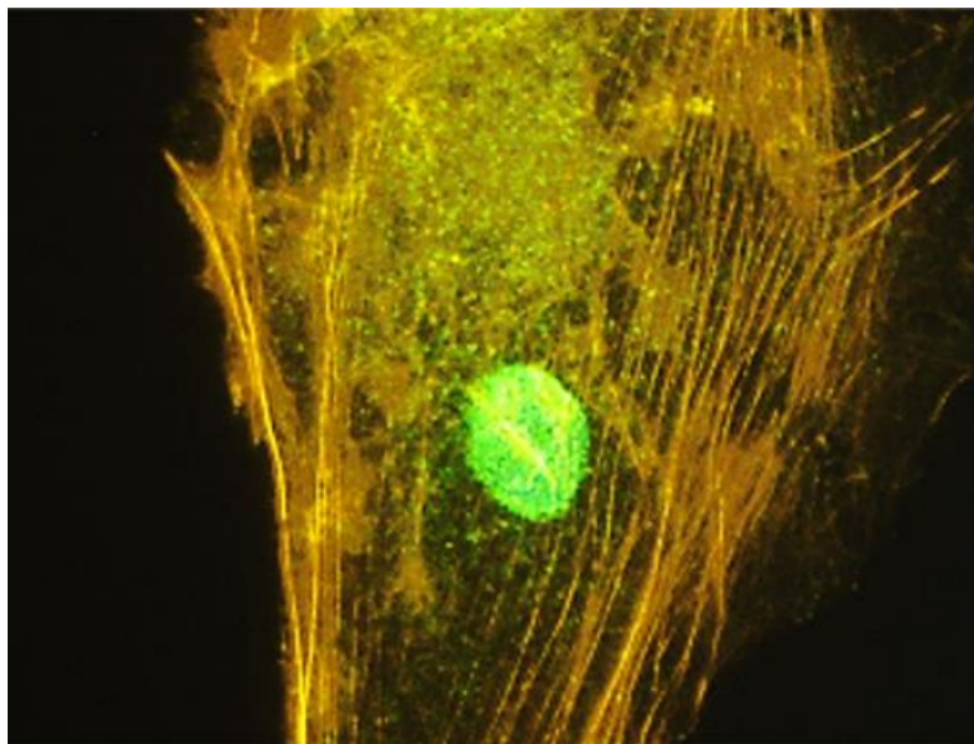
Product Datasheet Chickens make better antibodies.

### Overview

|                           |                                                                                                                                |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog #</b>          | SOX2-0100 (500 L size) or SOX2-0020 (100 L size)                                                                               |
| <b>Concentration</b>      | 0.2 mg/mL                                                                                                                      |
| <b>Host Species</b>       | Chicken Polyclonal                                                                                                             |
| <b>Format</b>             | Affinity-Purified IgY                                                                                                          |
| <b>Buffer</b>             | Phosphate-buffered (10 mM) isotonic (0.9%, w/v) saline ("PBS," pH 7.2) with sodium azide (0.02%, w/v) added as a preservative. |
| <b>Applications</b>       | ICC 1:100-1:500 WB 1:500-1:1000                                                                                                |
| <b>Species Reactivity</b> | Human, Mouse, and Rat                                                                                                          |
| <b>Immunogen</b>          | His tagged full-length protein                                                                                                 |
| <b>Molecular Weight</b>   | 35 kDa                                                                                                                         |
| <b>Cite this Antibody</b> | Pel-Freez Biologicals Cat# SOX2-0100 or Pel-Freez Biologicals Cat# SOX2-0020;<br>RRID: AB_3068326                              |

## Figures





Western blotting of SOX2-FLAG transfected COS-7 cell lysate (10 µg/lane), mock transfected COS-7 cell Immunofluorescent staining of NTERA2 cells stained with Pel-Freez Biologicals anti-SOX2 antibody (green) showing strong nuclear staining of lysate (10 µg/lane) and NTERA2 cell lysate (10 µg/lane) and stained with Pel-Freez Biologicals anti-SOX2 endogenous SOX2. Actin filaments are stained with phalloidin (red). antibody (1µg/mL). Note that SOX2 runs at higher molecular weight in lane 1 due to presence of tandem Myc/FLAG tag on recombinant protein relative to endogenous SOX2 in lane 3.

## Details

### Target Description

SOX2, short for SRY (Sex-Determining Region Y)-Box 2, belongs to the SOX family of proteins which play essential roles in cell differentiation, development, and organogenesis. A transcription factor, SOX2 aids in the embryonic formation of the central nervous system and neural progenitor cells. It helps to maintain the pluripotency of embryonic stem cells, allowing them to differentiate. In adult tissues, SOX2 aids in neural tissue regeneration and repair, as well as the maintenance of adult neural stem cells and their ability to develop into different specialized cell types, essential for neural plasticity. Mutations or dysregulation of SOX2 have been linked to a range of neurological diseases, including neurodevelopmental disorders like aniridia (Matsushima 2011), and optic nerve hypoplasia and septo-optic dysplasia (McCabe 2010). SOX2 has also been implicated in certain brain tumors, particularly in gliomas, where its dysregulation can contribute to uncontrolled cell proliferation (Mansouri 2016).

### Purification Method

Eggs from hens hyperimmunized with target were used to prepare an IgY fraction which was then subjected to antigen-specific affinity purification.

### Quality Control Tests

Each new lot of this antibody is tested in WB to confirm that it recognizes a single immunoreactive band of expected molecular weight when used to probe brain lysate.

**Storage**

Store at 4°C in the dark. Under these conditions, the antibodies should have a shelf life of at least twelve months, provided they remain sterile. For longer term storage, aliquot and freeze to avoid freeze-thaw of the antibody.

**Our Guarantee**

As an original manufacturer, we are dedicated to creating quality and reproducible antibodies that further your research. We provide personalized customer support from the scientists that made the antibody and offer a free replacement or 100% refund if we cannot resolve an issue. Order today and experience how chickens make better antibodies.

Note: For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, viewable on our website.

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES.

