

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human SOX1 in direct ELISAs and Western blots. In direct ELISAs, less than 15% cross-reactivity with recombinant human (rh) SOX2 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human SOX1 Asn242-Gly379 (Leu276Ile) Accession # NP_005977
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

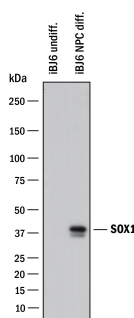
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Simple Western</b>	10 µg/mL	See Below

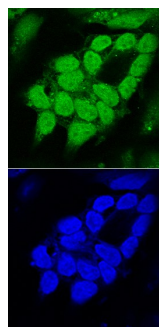
## DATA

### Western Blot



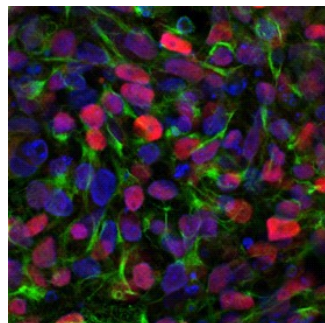
**Detection of Human SOX1 by Western Blot.** Western blot shows lysates of undifferentiated iBJ6 human iPS cells and iBJ6 human iPS cells differentiated into neuroprogenitor cells. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse/Rat SOX1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3369) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for SOX1 at approximately 39 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

### Immunocytochemistry



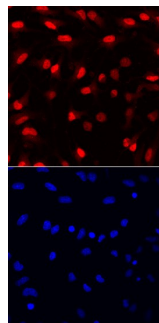
**SOX1 in differentiated Ntera-2 Human Cell Line.** SOX1 was detected in immersion fixed Ntera-2 human testicular embryonic carcinoma cell line differentiated with retinoic acid using Goat Anti-Human/Mouse/Rat SOX1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3369) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 493-conjugated Anti-Goat IgG Secondary Antibody (green, upper panel; Catalog # NL003) and counterstained with DAPI (blue, lower panel). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunocytochemistry



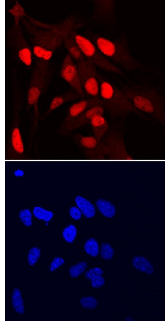
**SOX1 in ectoderm differentiated BG01V Human Embryonic Stem Cells.** SOX1 was detected in immersion fixed BG01V human embryonic stem cells differentiated into neural progenitor cells using Goat Anti-Human/Mouse/Rat SOX1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3369) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Nestin was also detected using Mouse Anti-Mouse/Rat Nestin Monoclonal Antibody (Catalog # MAB2736) and stained using the NorthernLights™ 493-conjugated Anti-Mouse IgG Secondary Antibody (green; Catalog # NL009). Specific staining of SOX1 was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

### Immunocytochemistry



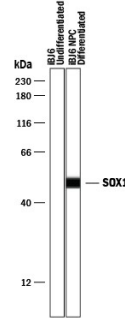
**SOX1 in Rat Cortical Stem Cells.** SOX1 was detected in immersion fixed rat cortical stem cells (Catalog # NSC001) using Goat Anti-Human/Mouse/Rat SOX1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3369) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## Immunocytochemistry



**SOX1 in Mouse Cortical Stem Cells.** SOX1 was detected in immersion fixed mouse cortical stem cells (Catalog # NSC002) using Goat Anti-Human/Mouse/Rat SOX1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3369) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## Simple Western



**Detection of Human SOX1 by Simple Western™.** Simple Western lane view shows lysates of undifferentiated iBJ6 human iPS cells and iBJ6 human iPS cells differentiated into neuroprogenitor cells, loaded at 0.2 mg/mL. A specific band was detected for SOX1 at approximately 50 kDa (as indicated) using 10 µg/mL of Goat Anti-Human/Mouse/Rat SOX1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3369) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  
\*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## BACKGROUND

SOX1 is a 39 kDa transcription factor that belongs to the SOXB1 subgroup. Within the developing CNS, SOX1 maintains neural cells in an undifferentiated state and has been used as a marker for neural stem cells. Human and mouse SOX1 share 97% amino acid sequence identity.