Human/Mouse/Rat SOX2 Antibody

Recombinant Monoclonal Mouse IgG_{2A} Clone # 245610R

Catalog Number: MAB2018R

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human and mouse SOX2 in Western blots.
Source	Recombinant Monoclonal Mouse IgG_{2A} Clone # 245610R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E.coli*-derived recombinant human SOX2 Gly135-Met317 Accession # P48431
Formulation	Supplied as a solution in PBS. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

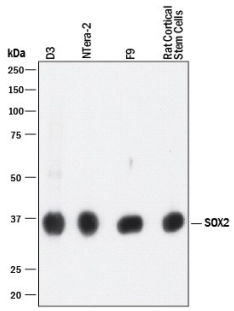
APPLICATIONS

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
Western Blot	2 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10^6 cells	See Below

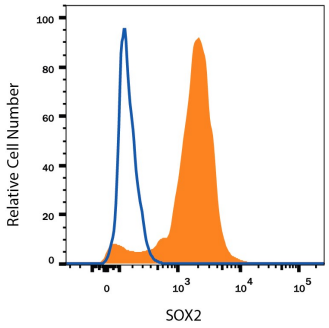
DATA

Western Blot



Detection of Human, Mouse, and Rat SOX2 by Western Blot. Western blot shows lysates of D3 mouse embryonic stem cell line, NTera-2 human testicular embryonic carcinoma cell line, F9 mouse teratocarcinoma stem cells, and rat cortical stem cells. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human/Mouse/Rat SOX2 Monoclonal Antibody (Catalog # MAB2018R) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for SOX2 at approximately 36 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Intracellular Staining by Flow Cytometry



Detection of SOX2 in NTera-2 Human Cell Line by Flow Cytometry. NTera-2 human testicular embryonic carcinoma cell line was stained with Recombinant Mouse Anti-Human/Mouse/Rat SOX2 Monoclonal Antibody (Catalog # MAB2018R, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. 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 opening. ● 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

SOX2 belongs to the SOX (SRY-like HMG box) family of transcription factors with diverse roles in development. SOX2 functions in specifying the first three lineages present at implantation and in regulating proliferation and differentiation in the developing peripheral nervous system (1-6).

References:

1. Graham, V. *et al.* (2003) Neuron **39**:749.
2. Avilion, A.A. *et al.* (2003) Genes Dev. **17**:126.
3. Kishi, M. *et al.* (2000) Development **127**:791.
4. Yuan, H. *et al.* (1995) Genes Dev. **9**:2635.
5. Uwanogho, D. *et al.* (1995) Mech. Dev. **49**:23.
6. Stevanovic, M. (2003) Mol. Biol. Rep. **30**:127.

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