

Technical Data Sheet

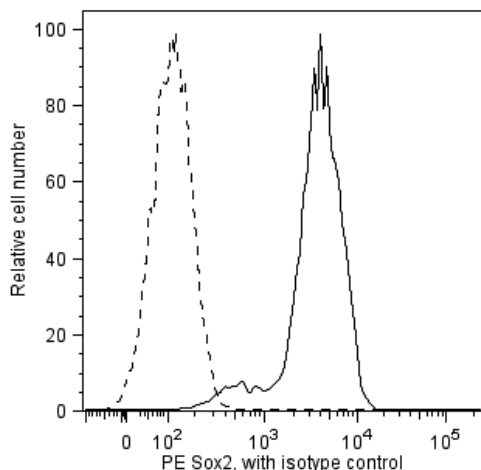
PE Mouse anti-Sox2

Product Information

Material Number:	560291
Alternate Name:	ANOP3, MCOPS3, MGC2413
Size:	50 tests
Vol. per Test:	20 µl
Clone:	245610
Immunogen:	Human SOX2 Recombinant Protein
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The monoclonal antibody 245610 recognizes the Sox2 transcription factor. Sox2 [SRY (sex determining region Y)-box 2] is a member of the SRY-related HMG-box (SOX) family of transcription factors. Sox2 is required for the maintenance of the undifferentiated state of pluripotent stem cells. Complexes of Sox2 with the homeobox transcription factors Oct3/4 and/or Nanog bind to the promoters of a network of genes that are involved in the maintenance of pluripotency and self renewal in stem cells. The 245610 antibody recognizes both human and mouse proteins. Sox2 is also a marker of neural stem cells during embryonic development and in the adult brain.



Flow cytometric analysis of PE Mouse anti-Sox2 in H9 cells. H9 human embryonic stem (ES) cells (WiCell, Madison, WI) were fixed (BD Cytotfix™ buffer, Cat. No. 554655) for 10 minutes at 37°C, permeabilized with BD™ Phosflow Perm Buffer III (Cat. No. 558050) on ice for 30 minutes, and then stained with either PE Mouse anti-Sox2 (solid line) or PE Mouse IgG2a Isotype Control (dashed line). Any of the three BD™ Phosflow permeabilization buffers may be used with this antibody: BD™ Phosflow Perm/Wash Buffer I (Cat. No. 557885), BD™ Phosflow Perm Buffer II (Cat. No. 558052), or BD™ Phosflow Perm Buffer III (Cat. No. 558050). Flow cytometry was performed on a BD FACSCanto™ II flow cytometry system.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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Recommended Assay Procedure:

Either BD Cytotfix™ fixation buffer or BD™ Phosflow Fix Buffer I may be used for cell fixation. Any of the three BD™ Phosflow permeabilization buffers may be used with this antibody: BD™ Phosflow Perm/Wash Buffer I (Cat. No. 557885), BD™ Phosflow Perm Buffer II (Cat. No. 558052), or BD™ Phosflow Perm Buffer III (Cat. No. 558050).

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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
558050	Perm Buffer III	125 ml	(none)
554655	Fixation Buffer	100 ml	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Boyer LA, Lee TI, Cole MF, et al. Core transcriptional regulatory circuitry in human embryonic stem cells. *Cell*. 2005; 122:947-956. (Biology)
Pan G, Thomson JA. Nanog and transcriptional networks in embryonic stem cell pluripotency. *Cell Res*. 2007; 17:42-49. (Biology)
Takahashi K, Yamanaka S. Induction of pluripotent stem cells from mouse embryonic and adult fibroblast cultures by defined factors. *Cell*. 2006; 126:633-676. (Biology)