Technical Data Sheet

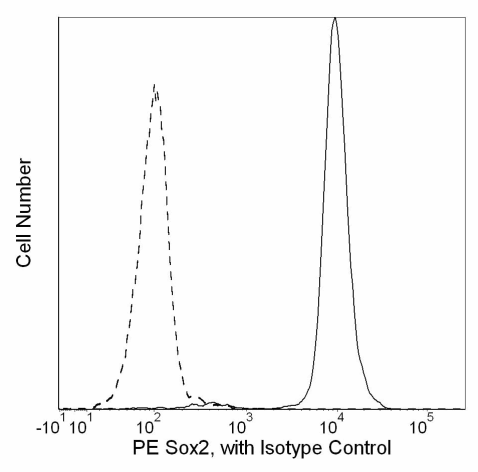
PE Mouse Anti-Sox2

Product Information

Material Number:	**562195**
Entrez Gene ID:	6657, 20674
Size:	50 tests
Vol. per Test:	5 µl
Clone:	O30-678
Immunogen:	Human Sox2 Recombinant Protein
Isotype:	Mouse (CD) IgG1, κ
Reactivity:	QC Tested: Human Confirmed by western blot using purified antibody (Cat. No. 561469): Human, Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The monoclonal antibody O30-678 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. Sox2 is also a marker of neural stem cells during embryonic development and in the adult brain. The O30-678 antibody recognizes both human and mouse Sox2 proteins.



Flow cytometric analysis of Sox2 expression on human embryonic stem (ES) cells. *H9 human ES cells (WiCell, Madison, WI) passage 38 grown on irradiated mouse embryonic fibroblasts were harvested, fixed in BD Cytofix™ Fixation Buffer (Cat. No. 554655), permeabilized with BD Phosflow™ Perm/Wash Buffer I (Cat. No. 557885) and stained with PE Mouse anti-Sox2 antibody (Cat. No.562195, solid line) or PE mouse IgG1, κ isotype control (Cat. No.554680, dashed line). Histograms were derived from gated events based on light scattering characteristics of the H9 cell line. Flow cytometry was performed on a BD LSRFortessa™ flow cytometry system.*
Note: *BD Phosflow™ Perm/Wash Buffer I(Cat. No.557885) works for some cell types, however, for more consistent results we recommend the use of BD Phosflow™ Perm Buffer III (Cat. No. 558050).*

Preparation and Storage

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

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Recommended Assay Procedure:

BD Phosflow™ Perm/Wash Buffer I (Cat. No. 557885) works for some cell types, however, for more consistent results we recommend the use of BD Phosflow™ Perm Buffer III (Cat. No. 558050).

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
557885	Perm/Wash Buffer I	125 ml	(none)
558050	Perm Buffer III	125 ml	(none)
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554656	Stain Buffer (FBS)	500 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-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
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.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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)