Technical Data Sheet

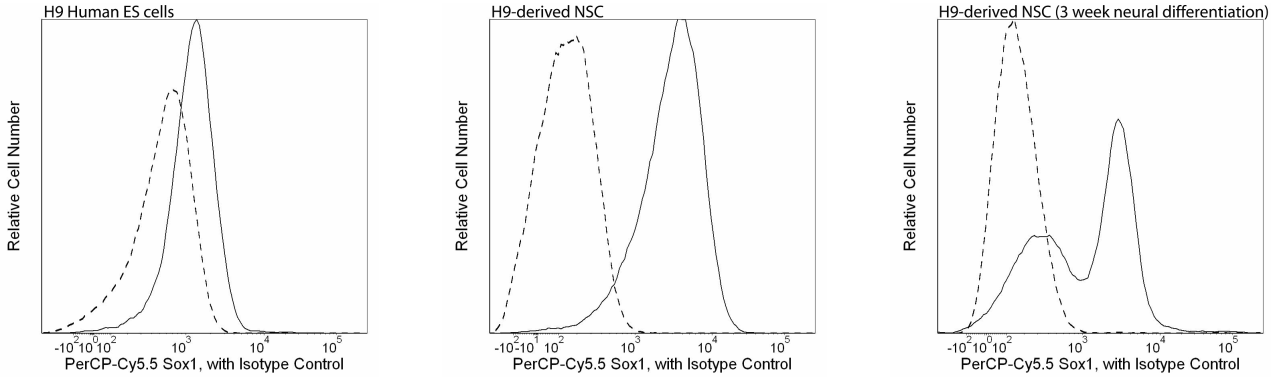
PerCP-Cy™5.5 Mouse anti-Human Sox1

Product Information

Material Number:	**561549**
Size:	50 tests
Vol. per Test:	5 µl
Clone:	N23-844
Immunogen:	Human Sox1 Peptide
Isotype:	Mouse IgG1, κ
Reactivity:	QC Tested: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The N23-844 monoclonal antibody reacts with human Sox1, a member of the SOX [SRY (sex determining region Y)-HMG-box] family of transcription factors. The encoded protein may act as a transcriptional activator after forming a protein complex with other proteins. It is one of the earliest transcription factors to be expressed in ectodermal cells committed to the neural fate. Sox1 is expressed in both embryonic and somatic neural stem and progenitor cells, and it is down regulated during neuronal differentiation in many neuronal subtypes.



Analysis of Sox1 in H9 Embryonic Stem (ES) cells (left panel), H9-derived Neural Stem Cells (NSC) (middle panel), and H9-derived Neurons (right panel). *H9 human ES cells (WiCell, Madison, WI), H9-derived NSC, and H9-derived neurons were harvested, fixed in BD Cytofix™ buffer (Cat. No. 554655), and permeabilized with BD™ Phosflow Perm buffer III (Cat. No. 558050). The ES and NSC were then blocked with 10% mouse serum (Sigma M9505). All cells were stained with matching concentrations of either PerCP-Cy5.5 Mouse IgG1, κ isotype control (dashed histograms, Cat. No. 550795) or PerCP-Cy5.5 Mouse Anti-Human Sox1 antibody (solid lines). Histograms were derived from gated events based on light scattering characteristics for the ES, NSC, and neurons, respectively. Flow cytometry was performed on a BD LSR™ II flow cytometry system. In the right panel, the brighter peak consists of undifferentiated NSC and glial cells that are staining positive for Sox1 and the dimmer peak consists of the neuronal population.*

Preparation and Storage

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

The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
550795	PerCP-Cy™5.5 Mouse IgG1 κ Isotype Control	0.1 mg	MOPC-21
558050	Perm Buffer III	125 ml	(none)
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).

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2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
4. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
5. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
7. 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.
8. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
9. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
10. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
11. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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