

Technical Data Sheet

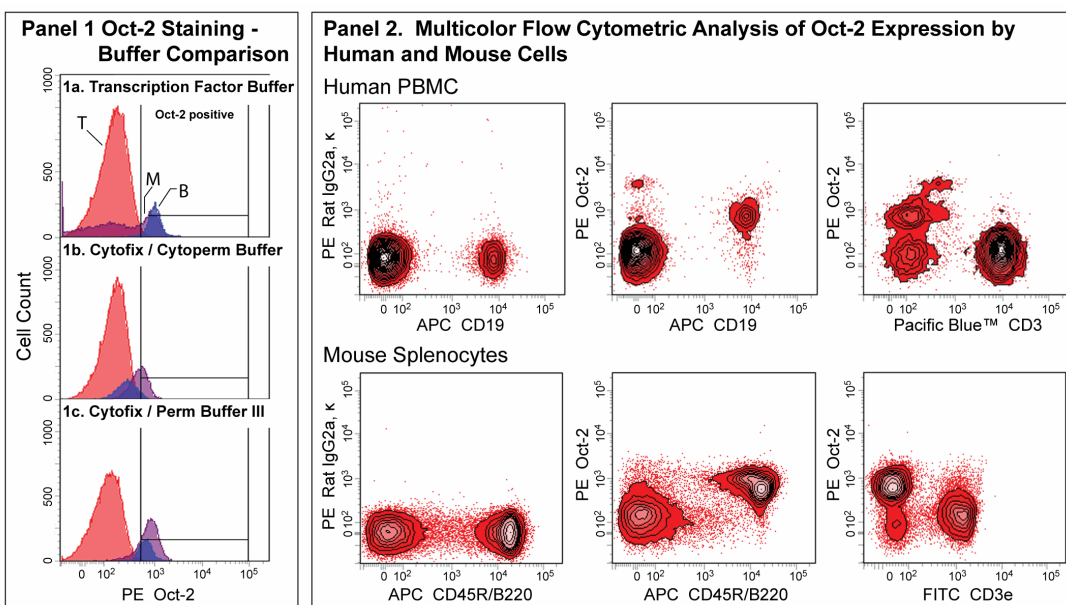
PE Rat Anti-Oct-2

Product Information

Material Number:	562838
Alternate Name:	Oct2, OTF-2, OCT2, OTF2, Oct2, NF-A2, POU2F2, Pou2f2, Otf2
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	9A2
Immunogen:	Mouse Oct-2 amino acids 1-44 Recombinant Protein
Isotype:	Rat IgG2a, κ
Reactivity:	QC Testing: Mouse Tested in Development: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 9A2 monoclonal antibody specifically binds to Oct-2 that has a molecular weight of approximately 50-60 kDa. The 9A2 antibody was generated against the 44 N-terminal amino acids common to mouse Oct-2 isoforms and crossreacts with both human and mouse Oct-2. Oct-2 is a POU class 2 homeobox 2 transcription factors (POU2F2) that is also known as OCT2, OTF2, Lymphoid-restricted immunoglobulin octamer-binding protein NF-A2 and Octamer-binding transcription factor 2. The POU domain in the Oct-2 protein is required for low and high affinity cooperative binding of the octomer sequence and heptamer site in immunoglobulin promoters and promoters for other genes. Oct-2 is expressed in B cells, activated CD4+ and CD8+ T cells, monocytes/macrophages and subsets of dendritic cells. Oct-2 is reportedly associated with neoplasms including Diffuse Large B-cell lymphoma and Nodular Lymphocyte predominant Hodgkin's lymphoma. Studies with knockout mouse models suggest Oct-2 is required for B cell maturation, but not for B cell commitment, and for B cell production of IL-6.

**Multicolor flow cytometric analysis of Oct-2 expressed in Human and Mouse cells.**

Panel 1: Human, peripheral blood mononuclear cells, PBMCs were fixed and permeabilized using either the Transcription Factor Buffer Set (Cat. No. 562574/562725); BD Cytofix/Cytoperm™ (Cat. No. 554722) and BD Perm/Wash™ Buffer (Cat. No. 554723); or BD Cytofix™ Fixation Buffer (Cat. No. 554655) and Perm Buffer III (Cat. No. 558050). Cells were stained with either PE Rat Anti-Oct-2 antibody (Cat. No. 562838) or PE Rat IgG2a, κ Isotype Control (Cat. No. 554689). Prior to fixation, the PBMCs were counterstained with Pacific Blue™ Mouse Anti-Human CD3 (Cat. No. 558117), APC Mouse Anti-Human CD19 (Cat. No. 555415) and FITC Mouse Anti-Human CD14 (Cat. No. 555397). In Panel 1, the data were derived for gated events with the forward and side light-scatter characteristics and positive staining of CD3+ T cells (labeled as T), CD14+ monocytes (M) or CD19+ B cells (B) for the different buffer systems.

Panel 2: Human PBMCs and BALB/c mouse splenocytes were fixed and permeabilized with the BD Pharmingen™ Transcription Factor Buffer Set. Cells were then stained with PE Rat IgG2a, κ Isotype Control or PE Rat Anti-Oct-2 antibody. The PBMCs were counterstained with Pacific Blue™ Mouse Anti-Human CD3 (Cat. No. 558117) and APC Mouse Anti-Human CD19 (Cat. No. 555415) antibodies. Mouse splenocytes were counterstained with Alexa Fluor® 647 Rat Anti-Mouse CD45R/B220 (Cat. No. 557883) and FITC Hamster Anti-Mouse CD3e (Cat. No. 553062) antibodies. The flow cytometric data were derived from gated events with the forward and side light-scatter characteristics of intact human and mouse lymphocytes. Flow cytometry was performed using a BD LSRFortessa™ Cell Analyzer.

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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
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554689	PE Rat IgG2a, κ Isotype Control	0.1 mg	R35-95
554656	Stain Buffer (FBS)	500 ml	(none)
562574	Transcription Factor Buffer Set	100 tests	(none)
562725	Transcription Factor Buffer Set	25 tests	(none)
554722	Fixation and Permeabilization Solution	125 ml	(none)
554723	Perm/Wash Buffer	100 ml	(none)
554655	Fixation Buffer	100 ml	(none)
558050	Perm Buffer III	125 ml	(none)
562837	Purified Rat Anti-Oct-2	50 μ g	9A2

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
7. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.

References

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