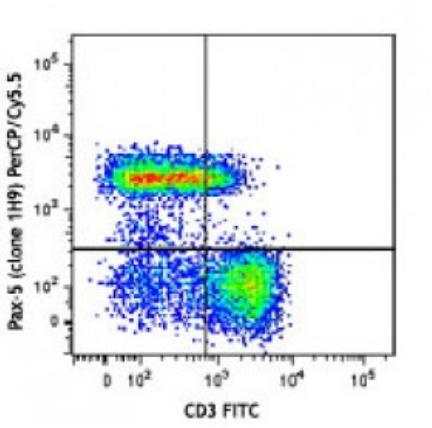
SONY

Product Data Sheet

PerCP/Cy5.5 anti-Pax-5

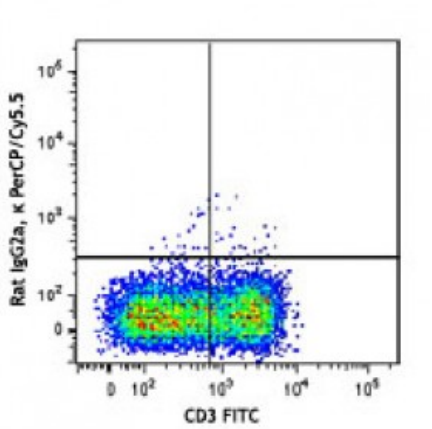
Catalog # / Size:	3848550 / 100 µg 3848545 / 25 µg
Clone:	1H9
Isotype:	Rat IgG2a, κ
Immunogen:	Recombinant mouse Pax-5 protein
Reactivity:	Human,Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with PerCP/Cy5.5 under optimal conditions. The solution is free of unconjugated PerCP/Cy5.5 and unconjugated antibody.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration:	0.2



C57BL/6 mouse splenocytes were surface stained with mouse CD3 FITC. Cells were then intracellularly stained with Pax-5 (clone 1H9) PerCP/Cy5.5 (top) or rat IgG2a, κ PerCP/Cy5.5 isotype control (bottom).

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by intracellular flow cytometry . For flow cytometric staining, the suggested use of this reagent is ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application. * PerCP/Cy5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
Application Notes:	The monoclonal 1H9 antibody recognizes both mouse and human Pax5. Additional reported applications (for the relevant formats) include: Western blotting[1,2] and immunohistochemical staining of formalin-fixed sections. **NOTE**: For flow cytometric staining with this clone, True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 424401) offers improved staining and is highly recommended over the Foxp3 Fix/Perm Buffer Set (Cat. No. 421403) and the Nuclear Factor Fixation and Permeabilization Buffer Set (Cat. No. 422601).



Application References:
1. Kallies A, *et al.* 2007. *Immunity* 26:555. (WB)
2. McManus S, *et al*. 2011. *EMBO J*. 30:2388. (WB)

Description: Pax5, also known as BSAP (B cell specific activator protein), is a member of the paired box (Pax) family of transcription factors. PAX proteins are important regulators in early development, and alterations in the expression of their genes are thought to contribute to neoplastic transformation. Pax5 is the only member of the Pax family of transcription factors that is expressed in hematopoietic cells. During embryogenesis, Pax5 is transiently expressed in the brain of mice and in the mesencephalon and spinal cord of humans. Its expression is upregulated early in B cell development at the time of B cell commitment and is maintained throughout most subsequent stages. Suppression of Pax5 is essential for expression of Blimp-1 and the terminal differentiation of plasma cells. In the spleen, expression of Pax5 is higher in marginal zone B cells (B220+ CD21high CD23low) than in other B cells, especially the transition 1 stage (B220+ CD21- CD23-). In addition to its role in B cell development, Pax5 also affects VH-DJH heavy chain recombination as well as influencing the expression of many other B and non-B cell related proteins. Its expression has also been detected in developing CNS and testis and so the encoded protein may also play a role in neural development and spermatogenesis.

This gene is located at 9p13, which is involved in t(9;14)(p13;q32) translocations recurring in small lymphocytic lymphomas of the plasmacytoid subtype, and in derived large-cell lymphomas. This translocation brings the potent E-mu enhancer of the IgH gene into close proximity of the PAX5 promoter, suggesting that the deregulation of transcription of this gene contributes to the pathogenesis of these lymphomas. Alternatively spliced transcript variants encoding different isoforms have been described but their biological validity has not been determined.

Antigen References:
1. Liao F, *et al.* 1992. *J. Immunol.* 148:2909.
2. Nutt SL, *et al.* 1997. *Genes Dev.* 11:476.
3. Nera KP, *et al.* 2006. *Immunity* 24:283.
4. Fuxa M, et al. 2007. *Immunity* 178:30