Technical Data Sheet

PE Mouse Anti-Rat CD45RA

Product Information

Material Number:	**551402**
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	OX-33
Immunogen:	Leukocyte common antigen purified from rat splenocytes
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The OX-33 antibody reacts with a high-molecular-weight form of CD45 found only on B lymphocytes. CD45 is a member of the Protein Tyrosine Phosphatase (PTP) family: Its intracellular (COOH-terminal) region contains two PTP catalytic domains, and the extracellular region is highly variable due to alternative splicing of exons 4, 5, and 6 (designated A, B, and C, respectively), plus differing levels of glycosylation. The CD45 isoforms detected in the rat are cell type-, maturation-, and activation state-specific. The CD45 isoforms play complex roles in T-cell and B-cell antigen receptor signal transduction.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

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

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

We have observed that the staining intensity of OX-33 mAb is reduced after fixation of stained leukocytes (≤ 3 hours with 1% formaldehyde). Therefore, one should not fix the stained cells prior to flow cytometry. We have found that freshly-isolated leukocytes and cell lines may wait for analysis in wash buffer at 4°C, without fixation, for up to 18 hours post-staining without loss of viability. Activated lymphocytes may lose viability rapidly, and data should be collected within 5 hours post-staining.

Suggested Companion Products

Catalog Number	Name	Size	Clone
550617	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-31C

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/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.

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References

Johnson P, Maiti A. CD45: A family of leukocyte-specific cell surface glycoproteins. In: Herzenberg LA, Weir DM, Blackwell C, ed. *Weir's Handbook of Experimental Immunology, Vol 2.* Cambridge: Blackwell Science; 1997:62.1-62.16.(Biology)

Woollett GR, Barclay AN, et al. Molecular and antigenic heterogeneity of the rat leukocyte common antigen from thymocytes and T and B lymphocytes.. *Eur J Immunol.* 1985; 15:168-173.(Immunogen: Flow cytometry)