

Technical Data Sheet

Purified Rat Anti-Mouse CD53

Product Information

Material Number:	559364
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	OX-79
Immunogen:	BAB/14 mouse macrophage cell line RAW 264
Isotype:	Rat (AO) IgM, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The OX-79 antibody reacts with CD53, a 35-45-kDa member of the Transmembrane 4-pass protein superfamily (TM4SF). As in the human, mouse peripheral leukocytes express CD53 mRNA and protein, and erythrocytes and nonhematopoietic cells do not. However, the distribution of CD53 in the mouse and rat thymus differs from that in the human. In the mouse, most CD4+8- and major subsets of CD4- CD8- (double-negative) and CD4- CD8+ thymocytes express CD53, while most cortical CD4+ CD8+ (double-positive) thymocytes are CD53-low or CD53-negative. CD53 expression can be induced in double-positive thymocytes by cross-linking of their T-cell receptors with anti-TCR mAb or peptide-pulsed antigen-presenting cells. There is a strong correlation between positive selection of thymocytes and CD53 expression. Its association with CD2 and a tyrosine phosphatase in rat T lymphocytes and with CD19, CD21, HLA-DR, and other TM4SF proteins in human B lymphocytes suggests that CD53 is involved in leukocyte signal transduction.

Preparation and Storage

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

Store undiluted at 4° C.

Application Notes

Application

Flow cytometry	Routinely Tested
Western blot	Reported
Immunohistochemistry-frozen	Reported
Immunohistochemistry-paraffin	Not Recommended

Recommended Assay Procedure:

Other reported applications include western blot analysis and immunohistochemical (IHC) staining of acetone-fixed frozen sections. This antibody has been tested in development for IHC application on acetone-fixed frozen Balb/C mouse spleen and thymus tissue sections with the antibody concentration of 1-10 μ g/ml. IHC of paraffin-embedded sections is not recommended.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553940	Purified Rat IgM, κ Isotype Control	0.5 mg	R4-22
554016	FITC Goat Anti-Rat Ig	0.5 mg	Polyclonal

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. 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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