

## Technical Data Sheet

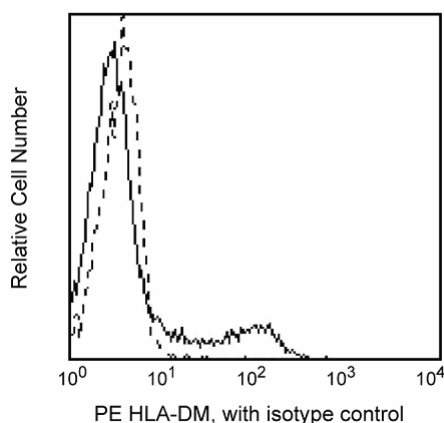
## PE Mouse Anti-Human HLA-DM

## Product Information

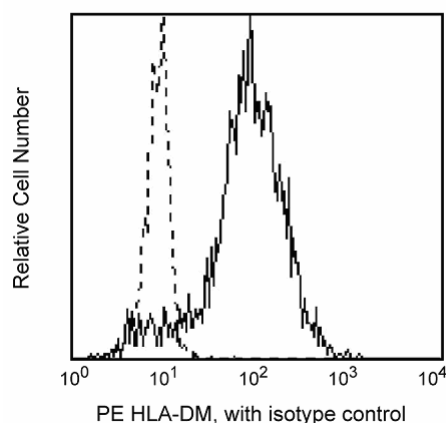
<b>Material Number:</b>	555983
<b>Size:</b>	100 tests
<b>Vol. per Test:</b>	20 µl
<b>Clone:</b>	MaP.DM1
<b>Isotype:</b>	Mouse IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

Reacts with human leukocyte antigen-DM (HLA-DM), a non-classical MHC class II molecule expressed in the cytoplasm of antigen presenting cells (APC). HLA-DM is composed of alpha and beta subunits which form a similar structure as the classical class II molecules. HLA-DM catalyzes the dissociation of CLIP from MHC class II-CLIP complexes in vitro and facilitates the binding of antigenic peptides. It also prevents self-antigens from becoming stably complexed with class II molecules and being presented to T cells.



*Profile of intracellular staining of peripheral blood lymphocytes analyzed on a FACScan (BDIS, San Jose, CA).*



*Profile of intracellular staining of peripheral blood monocytes analyzed on a FACScan (BDIS, San Jose, CA).*

## 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.

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

## Application Notes

## Application

Intracellular staining (flow cytometry)	Routinely Tested
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## Recommended Assay Procedure:

For multi-color staining for intracellular protein and cell surface antigens, please refer to Please refer to

[www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols. The Cytofix/Cytoperm™ Kit (Catalog No. 554714) is recommended for intracellular staining of HLA-DM.

## BD Biosciences

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## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554714	BD Cytotfix/Cytoperm Fixation/Permeablization Kit	250 tests	(none)
559320	PE Mouse IgG1, $\kappa$ Isotype Control	100 tests	MOPC-21

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to [wwwbdbiosciences.com/pharmingen/protocols](http://wwwbdbiosciences.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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References

- Denzin LK, Cresswell P. HLA-DM induces CLIP dissociation from MHC class II alpha beta dimers and facilitates peptide loading. *Cell*. 1995; 82(1):155-165. (Biology)
- Kropshofer H, Hämmerling GJ, Vogt AB. How HLA-DM edits the MHC class II peptide repertoire: survival of the fittest. *Immunol Today*. 1997; 18(2):77-82. (Biology)
- Kropshofer H, Vogt AB, Moldenhauer G, Hammer J, Blum JS, Hämmerling GJ. Editing of the HLA-DR-peptide repertoire by HLA-DM. *EMBO J*. 1996 November; 15(22):6144-6154. (Biology)
- Schafer PH, Green JM, Malapati S, Gu L, Pierce SK. HLA-DM is present in one-fifth the amount of HLA-DR in the class II peptide-loading compartment where it associates with leupeptin-induced peptide (LIP)-HLA-DR complexes. *J Immunol*. 1996 December; 157(12):5487-5495. (Biology)
- Wubbolts R, Fernandez-Bona M, Neefjes J. MHC class II molecules: transport pathways for antigen presentation. *Trends Cell Biol*. 1997 March; 7(3):115-118. (Biology)