

# HLA-DR Monoclonal Antibody (LN3), Super Bright™ 645, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG2b, kappa
Recommended Isotype Control	Mouse IgG2b kappa Isotype Control (eBMG2b), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	LN3
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2688214

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.125 µg)/test	10 Publications

## Product Specific Information

The LN3 mAb reacts with the human major histocompatibility complex (MHC) class II, HLA-DR. HLA-DR is expressed on the surface of human antigen presenting cells (APC) including B cells, monocytes, macrophages, DCs, and activated T cells. HLA-DR is a heterodimeric transmembrane protein composed of alpha and beta subunits and plays an important role in the presentation of peptides to CD4<sup>+</sup> T lymphocytes.

Applications Reported: This LN3 antibody has been reported for use in flow cytometric analysis.

Applications Tested: The LN3 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at 5 µL (0.125 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet

for Super Bright Staining Buffer for more information.

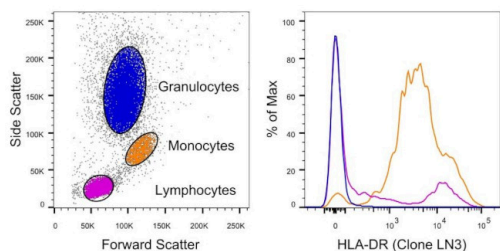
**Light sensitivity:** This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

**Fixation:** Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

**Excitation:** 405 nm; **Emission:** 645 nm; **Laser:** Violet Laser

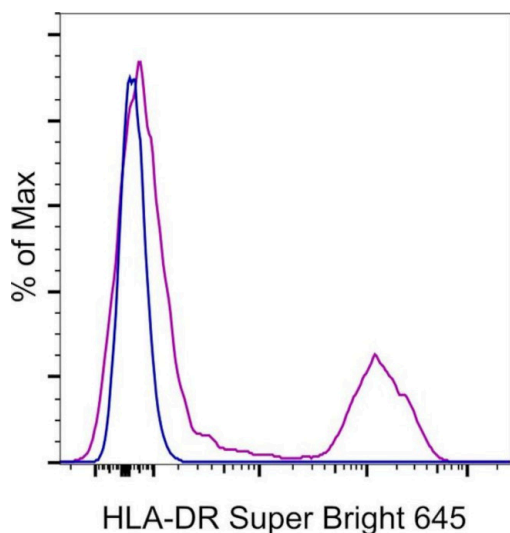
Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For HLA-DR Monoclonal Antibody (LN3), Super Bright™ 645, eBioscience™



### HLA-DR Antibody (64-9956-42)

Staining of human peripheral blood cells. As expected based on known relative expression patterns, HLA-DR clone LN3 stains monocytes and a subset of lymphocytes (B cells) but does not stain granulocytes. Details: Normal human whole blood was surface stained with HLA-DR (clone LN3). After staining, red blood cells were lysed using 1-step Fix/Lyse Buffer. Cells in the lymphocyte (purple histogram), monocyte (orange histogram), or granulocyte (blue histogram) gates were used for analysis of HLA-DR staining. {RE}



### HLA-DR Antibody (64-9956-42) in Flow

Normal human peripheral blood cells were stained with HLA-DR Monoclonal Antibody Super Bright 645 (Product # 64-9956-42). Cells in the lymphocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 15 References

### Immunohistochemistry (3)

Antioxidants (Basel, Switzerland)

#### Dimethyl Fumarate, an Approved Multiple Sclerosis Treatment, Reduces Brain Oxidative Stress in SIV-Infected Rhesus Macaques: Potential Therapeutic Repurposing for HIV Neuroprotection.

"Published figure using HLA-DR monoclonal antibody (Product # 64-9956-42) in Immunohistochemistry"

Authors: Garcia-Mesa Y, Xu HN, Vance P, Gruenewald AL, Garza R, Midkiff C, Alvarez-Hernandez X, Irwin DJ, Gill AJ, Kolson DL

Year  
2021

Nature communications

#### Gene expression and functional deficits underlie TREM2-knockout microglia responses in human models of Alzheimer's disease.

"Published figure using HLA-DR monoclonal antibody (Product # 64-9956-42) in Immunohistochemistry"

Authors: McQuade A, Kang YJ, Hasselmann J, Jairaman A, Sotelo A, Coburn M, Shabestari SK, Chadarevian JP, Fote G, Tu CH, Danhash E, Silva J, Martinez E, Cotman C, Prieto GA, Thompson LM, Steffan JS, Smith I, Davtayan H, Cahalan M, Cho H, Blurton-Jones M

Year  
2020

[View more IHC references on thermofisher.com](#)

### Immunohistochemistry (Frozen) (1)

Acta neuropathologica communications

#### Brain macrophages acquire distinct transcriptomes in multiple sclerosis lesions and normal appearing white matter.

"Published figure using HLA-DR monoclonal antibody (Product # 64-9956-42) in Immunohistochemistry (Frozen)"

Authors: Miedema A, Gerrits E, Brouwer N, Jiang Q, Kracht L, Meijer M, Nutma E, Peferoen-Baert R, Pijnacker ATE, Wesseling EM, Wijering MHC, Gabius HJ, Amor S, Eggen BJJ, Kooistra SM

Year  
2022

### Immunocytochemistry (1)

Oncoimmunology

#### The role of irreversible electroporation in promoting M1 macrophage polarization via regulating the HMGB1-RAGE-MAPK axis in pancreatic cancer.

"Published figure using HLA-DR monoclonal antibody (Product # 64-9956-42) in Flow Cytometry"

Authors: He C, Sun S, Zhang Y, Xie F, Li S

Year  
2021

### More applications with references on thermofisher.com

## Flow (10)

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