

Anti- Human HLA-B27/HLA-B7 (HLA-ABC-m3; BB7.1)



FITC/PE



B27B7-50T



50 test



RUO

1. PRODUCT DESCRIPTION

Clone: HLA-ABC-m3; BB7.1

Isotype: Mouse IgG2a; Mouse IgG1

Tested application: flow cytometry

Species reactivity: Human

Storage instruction: store in the dark at 2-8 °C

Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN₃).

Recommended usage: Immunostep's HLA-B27 FITC/ HLA-B7 PE is a dual-color monoclonal antibody reagent intended for the simultaneous identification and enumeration of cells expressing the HLA-B27 and HLA-B7 antigens, both members of the MHC class I family. HLA-B27 and HLA-B7 are surface heterodimers composed of a specific alpha chain associated with beta-2 microglobulin and are expressed on all nucleated cells. This reagent is designed for use in flow cytometry to support immunogenetic profiling and disease association studies and it is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10⁶ cells.

Presentation: liquid

Purification: Affinity chromatography.

2. ANTIGEN DETAILS

Large description: The monoclonal antibodies included in this reagent are directed against the HLA-B27 and HLA-B7 antigens, both of which are polymorphic surface proteins belonging to the human MHC class I family. These molecules are expressed on all nucleated cells and consist of a specific transmembrane alpha chain non-covalently associated with beta-2 microglobulin 1.

HLA-B27 plays a central role in antigen presentation to CD8⁺ T cells, particularly in the context of intracellular pathogens. It is strongly associated with spondyloarthropathies, especially ankylosing spondylitis, where over 90% of affected individuals express this antigen, compared to only 7% in the general population². Its expression is routinely assessed in clinical immunology to support diagnosis and disease monitoring.

HLA-B7, another classical MHC class I molecule, also presents endogenous peptides to cytotoxic T cells and is involved in immune surveillance. It is one of the most frequently expressed HLA-B alleles in the Caucasian population and is commonly included in HLA typing panels for transplantation compatibility³.

Both antigens are relevant in the field of immunopeptidomics, where antibodies targeting MHC class I molecules are used to isolate peptide-MHC complexes for mass spectrometry analysis. This approach enables the identification of tumor-associated or pathogen-derived peptides, contributing to the development of personalized immunotherapies³.

Please, refer to www.immunostep.com technical support for more information.

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties. Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. PROTOCOL








Direct Immunofluorescence Cell Surface Staining Protocol

1. Transfer 100 ul (10⁶ cells/test) of the sample to a 12 x 75 mm polystyrene test tube.
2. Add the suggested volume indicated on the antibody vial to the 12x75 mm cytometer tube.
3. Mix well and incubate in the dark at room temperature at 4 °C for 30 minutes or at room temperature (20-25 °C) for 15 minutes.
4. After the incubation period, add 1,5 ml of an erythrocyte-lysing solution and mix. Incubate at room temperature in the darkness (the blood should be well mixed with the lysing solution).
5. Centrifuge tubes at 540xg for 5 minutes. The supernatant is removed with a Pasteur pipette or with a vacuum pump.
6. Resuspend and wash with 3-5 mL of PBS at 540xg for 5 min.
7. After removing the supernatant and resuspending the cell pellet, add 300 µL of PBS and acquire on the flow cytometer are recorded.
8. Analyse on a flow cytometer or store at 2- 8 °C in the dark until analysis. Samples can be run up to 24 hours after lysis.

5. REFERENCES

1. Lysandropoulos AP, Racapé J, Holovska V, Toungouz M. Human leucocyte antigen (HLA) class I and II typing in Belgian multiple sclerosis patients. *Acta Neurol Belg.* 2017 Mar;117(1):61-65. doi: 10.1007/s13760-016-0716-0. Epub 2016 Oct 28. PMID: 27797002.
2. Peterson, R, Wang, L, Albert, L. et al. Pharmacogenomic analysis of rhIL-11 treatment in the HLA-B27 rat model of inflammatory bowel disease. *Pharmacogenomics J* 2, 383–399 (2002).
3. López-Larrea C, Gonzalez-Roces S, Alvarez V. HLA-B27 structure, function, and disease association. *Curr Opin Rheumatol.* 1996 Jul;8(4):296-308.

6. EXPLANATION OF SYMBOLS

	Form
	Catalog reference
	Contains sufficient for > test
	Quantity per test
	Regulatory Status
	Research Use Only
	Manufacturer

7. MANUFACTURED BY:



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