



Anti- Human HLA-B7 (BB7.1)

			
PE	HLAB7PE-100T	100 test	

1. PRODUCT DESCRIPTION

Clone: BB7.1

Isotype: Mouse / IgG1, kappa

Tested application: flow cytometry

Immunogen: Papain solubilized HLA-B7

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-B37 PE is a monoclonal antibody intended for the identification and enumeration of cells expressing the HLA-B7 antigen, a member of the HLA-B family of MHC class I molecules. These molecules are heterodimers composed of a specific alpha chain associated with beta-2 microglobulin and are expressed on all nucleated cells. This antibody is designed for use in flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10⁶ cells.

Presentation: liquid

Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma.

Purification: Affinity chromatography.

2. ANTIGEN DETAILS

Large description: The monoclonal antibody BB7.1 is directed against the HLA-B7 antigen, a polymorphic surface protein of the human MHC class I family. HLA-B7 is expressed on all nucleated cells and forms a heterodimer composed of a specific transmembrane HLA-B heavy chain and a non-covalently associated beta-2 microglobulin light chain I.

MHC class I molecules, including HLA-B7, play a central role in adaptive immunity by presenting intracellularly derived peptides to CD8⁺ T cells. These peptides may originate from endogenous proteins or, through cross-presentation, from extracellular sources. The primary ligands for MHC class I molecules are the T cell receptor (TCR) and the co-receptor CD8, which together mediate antigen-specific immune responses I.

HLA-B7 is one of the most studied alleles within the HLA-B locus, and hundreds of polymorphic variants have been identified. Typing for these alleles is routinely performed in the context of organ and hematopoietic stem cell transplantation to ensure compatibility and reduce the risk of graft rejection I.

In addition to its role in transplantation and immune surveillance, HLA-B7 is increasingly relevant in the field of immunopeptidomics. Antibodies targeting MHC class I molecules, such as BB7.1, are used to isolate peptide-MHC complexes for analysis by high-performance liquid chromatography coupled with tandem mass spectrometry (LC-MS/MS). This approach enables the identification of tumor-specific neoantigens and viral epitopes, contributing to the development of personalized immunotherapies 2.

Other Names: class I MHC, HLA-B antigen; HLA B44; hla b7; HLA class I antigen HLA-B; HLA class I histocompatibility antigen, B alpha chain; HLA class I histocompatibility antigen, B-47 alpha chain; HLA

Gene ID: 3106

UniProt ID: Q29678

Molecular weight: 40 kDa

For research use only, not for diagnostic procedures.

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 thereplacement of the products or refund of the purchase price.

4. REFERENCES

1. 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).
2. 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.

5. EXPLANATION OF SYMBOLS



Form



Catalog reference



Contains sufficient for <n> test



Quantity per test



Regulatory Status



Research Use Only



Manufacturer

6. MANUFACTURED BY:



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