Technical Data Sheet

InVivoMAb anti-human HLA-A2

Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.

Lot Specific Information

Lot Number:	**Lot Specific***
Volume:	**Lot Specific***
Concentration:	**Lot Specific* (generally 4 to 11 mg/ml) ***
Total Protein:	**Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Product Information

Catalog Number:	**BE0469**
Clone:	**BB7.2**
Isotype:	Mouse IgG2b, κ
Recommended Isotype Control(s):	InVivoMAb mouse IgG2b isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Priess human B cell line
Reported Applications:	*in vitro* functional assay Immunopeptidomics Immunoprecipitation Flow cytometry Immunofluorescence
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	<2EU/mg (<0.002EU/µg) Determined by LAL gel clotting assay
Purity:	>95% Determined by SDS-PAGE
Sterility:	0.2 µm filtered
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein A
Molecular Weight:	150 kDa

Description

The BB7.2 monoclonal antibody reacts with the alpha subunit of the human leukocyte antigen-A2 (HLA-A2), also known as HLAA, HLA class I histocompatibility antigen A α chain, and major histocompatibility complex, class I, A (MHC-IA). With 31 known alleles, the HLA-A2 family represents the largest and most diverse allele family at the HLA-A locus. Unlike many other HLA allele families, HLA-A2 is found more frequently in all ethnic groups; however, the frequencies of the alleles within the A2 family vary among ethnic groups. MHC class I antigens are expressed on the cell surface of all human nucleated cells, and as complexed with beta 2 microglobulin (β2M), the HLA-A2 molecule displays viral as well as tumor-derived peptides on antigen-presenting cells (APCs) for recognition by the αβ TCR on HLA-A-restricted CD8+ T cells, initiating antigen-specific T cell immune response to eliminate infected cells or transformed cells. HLA-A2 can also be involved in presenting self-peptides derived from the signal sequence of secreted or membrane proteins, but the T cells specific for these self-peptides are usually inactivated to prevent autoreactivity. HLA-A2 typically presents intracellular peptide antigens of 8 to 13 amino acids that arise from cytosolic proteolysis via IFNγ-induced immunoproteasome or via endopeptidase IDE/insulin-degrading enzyme. Immunopeptidomics, functional experiments and various immunoassays often utilize the BB7.2 antibody as HLA-A*02-specific antibody with a pan HLA class I antibody (W6/32 antibody) in pre-clinical immunology studies. Mutation at position 107 of the α2 domain of the HLA-A2 molecule results in a partial loss of BB7.2 binding with its epitope. Because of

overlapping epitopes, the BB7.2 antibody cannot be used in combination with the PA2.1 antibody. The BB7.2 antibody is also reported to cross-react with the HLA-A2 antigen of various non-human primate species.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/be0469?bxcs=9k1b3a#tab_references or scan the QR code below.

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