Technical Data Sheet

InVivoMAb anti-mouse MHC Class I (H-2Db)

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:	**BE0451**
Clone:	**28-14-8S**
Isotype:	Mouse IgG2a, κ
Recommended Isotype Control(s):	InVivoMAb mouse IgG2a isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	C3H.SW mouse splenocytes
Reported Applications:	MHC-I Immunopeptidomics *in vitro* blocking of MHC-I Immunocapture of peptide-MHC class - I complexes Immunoprecipitation Flow cytometry Immunohistochemistry (frozen) ELISA
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/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 G
RRID:	
Molecular Weight:	150 kDa

Description

The 28-14-8S monoclonal antibody reacts with the α3 domains of H-2Db of the MHC class I alloantigen expressed on nucleated cells from mice of the H-2Db haplotype. The 28-14-8S antibody shows weak cross-reactivity with Ld antigen, but it doesn't cross-react with Dd. H-2Db is a member of the MHC subgroup, and it is characterized by a hydrophobic ridge in the binding cleft. The H2 class I molecules are made up of three parts: a heavy chain that is 42 kDa, a 12-kDa protein called β2-microglobulin, and a short peptide made up of 8 to 11 amino acids. The endoplasmic reticulum carries out this assembly, but the stable trimeric complexes translocate to cell surfaces. H-2Db is a class I molecule that is able to reach the cell surface even in the absence of either β2 microglobulin or TAP-provided peptides. Interestingly, despite being incomplete and unstable, this molecule is still able to exhibit some functional capacities, in that it can induce and be recognized by allogeneic and self-restricted cytotoxic T lymphocytes. The H-2Db plays a critical role in antigen presentation to T cells expressing CD3/TCR and CD8 proteins. Like other MHC antibodies, the 28-14-8S clone finds its application in various immunoassays involving MHC-peptide complexes. It is a useful tool for immunopeptidomics research, making it easier to identify and describe neoantigens using HPLC and mass spectrometry.

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/be0451?bxcs=9k1b3a#tab_references or scan the QR code below.

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