Technical Data Sheet

Bispecific anti-mouse PD-1 x anti-mouse CTLA-4

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:	**CPB504**
Clone:	**Derived from clones 9D9 and RMP1-14**
Isotype:	Mouse IgG2a (LALA-PG), κ
Recommended Isotype Control(s):	Bispecific mouse IgG2a (LALA-PG), kappa isotype control
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	LALA-PG
Reported Applications:	ELISA For information on in-vivo applications, please contact technicalservice@bioxcell.com
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/μg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtration
Production:	Purified from mammalian cell supernatant in an animal-free facility
Purification:	Protein G
RRID:	
Molecular Weight:	136.3 kD

Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

Description

CPB504 is a 1+1 bivalent bispecific checkpoint inhibitor antibody that targets both mouse programmed cell death protein-1 (PD-1, CD279) and mouse cytotoxic T-lymphocyte–associated antigen-4 (CTLA-4) to enhance T-cell–mediated antitumor immunity. CPB504 contains the murine IgG2a constant region to reduce immunogenicity and the formation of anti-drug antibodies (ADAs) in mouse models and LALA-PG Fc-silencing mutations to abolish antibody-dependent cell-mediated cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC) while minimizing Fc-driven off-target toxicity. This bispecific is designed to simultaneously bind PD-1 and CTLA-4 on T cells, particularly tumor-infiltrating lymphocytes, to engage both checkpoints on the same or neighboring T cells and provide coordinated dual checkpoint blockade within the tumor microenvironment. Blocking PD-1 prevents interaction with PD-L1/PD-L2 and reverses PD-1–mediated inhibitory signaling, restoring T-cell activation, proliferation, and effector function against tumor cells. Concurrent CTLA-4 blockade

reduces competition with CD28 for CD80/CD86, enhancing costimulatory signaling and promoting expansion and priming of effector T cells, further amplifying antitumor responses.

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/cpb504?bxcs=9k1b3a#tab_references or scan the QR code below.

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