Technical Data Sheet

Bispecific anti-mouse PD-1 x anti-mouse CTLA4 (LALA-PG)

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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 Website Link: https://bioxcell.com/bispecific-anti-mouse-pd-1-x-anti-mouse-ctla4-lala-pg-cpb505

Product Information

Catalog Number:	**CPB505**
Clone:	**Derived from clones RMP1-14 and 9D9**
Isotype:	mouse IgG2a (LALA-PG)-scFv, κ
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:	202.9

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

CPB505 is a 2+2 symmetric tetravalent bispecific checkpoint inhibitor antibody with the same structure as human therapeutic Cadonilimab but designed to target mouse programmed cell death protein-1 (PD-1, CD279) and mouse cytotoxic T-lymphocyte–associated antigen-4 (CTLA-4) for use in murine models. Like Cadonilimab, CPB505 has two PD-1-blocking and two CTLA-4-blocking arms to confer high avidity in context of high checkpoint density such as within the tumor microenvironment. CPB505 also has an engineered null Fc-region through the incorporation of LALA-PG Fc-silencing mutations to prevent binding to Fcγ receptors and C1q, minimizing ADCC, ADCP, and complement activation against checkpoint-expressing lymphocytes. The synergistic effect of Fc-null engineering and tumor-biased engagement are intended to reduce systemic immune-related toxicities that are common with conventional PD-1 plus CTLA-4 combinations,

while maintaining robust antitumor activity. Unlike Cadonilimab, CPB505 contains the murine IgG2a constant region to reduce immunogenicity and the formation of anti-drug antibodies (ADAs) in mouse models. This bispecific is designed to simultaneously bind mouse PD-1 and mouse 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/bispecific-anti-mouse-pd-1-x-anti-mouse-ctla4-lala-pg-cpb505?utm_source=cr9k1b#tab_references or scan the QR code below.

Bio X Cell, LLC
https://bioxcell.com
+1-866-787-3444
customerservice@bioxcell.com