

Technical Data Sheet

InVivoMAb anti-rat CTLA-4 (CD152)



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: BE0424
Clone: WKH203
Isotype: Mouse IgG1, κ
Recommended Isotype Control(s): InVivoMAb mouse IgG1 isotype control, unknown specificity
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Immunogen: Purified rat CTLA-4hlg fusion protein
Reported Applications: *in vitro* CTLA-4 neutralization
Flow cytometry
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: $\leq 1\text{EU/mg}$ ($\leq 0.001\text{EU}/\mu\text{g}$)
Determined by LAL gel clotting assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: $0.2\ \mu\text{m}$ filtration
Production: Purified from cell culture supernatant in an animal-free facility
Purification: Protein G
RRID:
Molecular Weight: 150 kDa

Description

The WKH203 monoclonal antibody reacts with rat CTLA-4 (cytotoxic T-lymphocyte- antigen 4) (CTLA-4), also known as CD152. CTLA-4 is an inhibitory receptor acting as a key negative regulator of T-cell immune responses. CTLA-4 protein is expressed by activated T cells and by suppressor T regulatory cells. Rat CTLA-4 is a 223 amino acid long single-pass type I membrane protein (encoded by gene *Ctla4*) and has a predicted molecular weight of 24.9 kDa. CTLA-4 has structural similarities to the T-cell co-stimulatory protein CD28, and both of these molecules bind to the B7 family members B7-1 (CD80) and B7-2 (CD86). CTLA-4's affinity for its natural B7 family ligands CD80 and CD86 is significantly higher than the affinity of their cognate stimulatory co-receptor CD28. CTLA-4 plays key roles in induction and/or maintenance of immunological tolerance, thymocyte development, and regulation of protective immunity. CTLA-4 is among a group of inhibitory receptors being explored as cancer treatment targets through immune checkpoint blockade. In the last two decades, extensive research on CTLA-4 has led to the clinical approval of therapeutic antibodies for treatment of advanced metastatic melanoma and liver cancer. The binding of the CTLA-4 antibody to the CTLA-4 protein disrupts the key signaling mechanisms linked to the suppression of T cell activity, triggering T cells readily and enhancing the immune system's capacity to identify and eliminate cancer.

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/be0424?bxcs=9k1b3a#tab_references or scan the QR code below.



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