

Technical Data Sheet

InVivoMAb anti-human/monkey CD5



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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:	BE0494
Clone:	UCHT2
Isotype:	Mouse IgG1, κ
Recommended Isotype Control(s):	InVivoMAb mouse IgG1 isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 6.0T Dilution Buffer
Immunogen:	Human thymocytes followed by Sezary T cells
Reported Applications:	<i>in vivo</i> CAR-T generation via antibody-conjugated tLNP mRNA delivery <i>in vitro</i> functional assay Immunohistochemistry (frozen) Immunofluorescence Flow cytometry Immunoprecipitation Western blot
Formulation:	PBS + 0.01% Tween, pH 6.0 Contains no stabilizers or preservatives
Endotoxin:	$\leq 1\text{EU/mg}$ ($\leq 0.001\text{EU}/\mu\text{g}$) Determined by LAL assay
Purity:	$\geq 95\%$ Determined by SDS-PAGE
Sterility:	0.2 μm filtered
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein G
Molecular Weight:	150 kDa

Description

The UCHT2 monoclonal antibody reacts with human CD5, a lymphoid-specific receptor that is also known as Leu-1, Ly-1, Tp67, T1 and CD5 Antigen (P56-62). CD5 is a 67 kDa single-chain type I transmembrane glycoprotein and it belongs to the scavenger receptor cysteine-rich (SRCR) superfamily. CD5 is mainly expressed on the surface of all T cells, a subset of B cells (B1a cells), and select conventional or myeloid dendritic cells (DCs). Characteristic/aberrant expression of CD5 is observed in B-cell chronic lymphocytic leukemia (B-CLL). CD5 functions as a key modulator of innate and adaptive immunity. CD5's binding with its ligands CD72 and CD5L contributes to contact-mediated, T-dependent B-cell activation, and it helps maintain regulatory T- and B-cell homeostasis. CD5 modulates lymphocyte activation thresholds by negatively regulating T cell receptor (TCR)/CD3 and B cell receptor (BCR) signaling. CD5 is also implicated in antigen-driven signaling events, the survival of lymphocyte, immune tolerance, pathogen-associated molecular patterns (PAMPs) recognition pathway, and immune checkpoint-like regulation. CD5's role as a central immunoregulatory molecule—capable of both attenuating lymphocyte activation and, under specific contexts, facilitating immune responses—is actively being investigated in inflammation, infection biology, and experimental cancer immunotherapy.

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 [?utm_source=cr9k1b#tab_references](https://bioxcell.com/?utm_source=cr9k1b#tab_references) or scan the QR code below.



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