

PRODUCT INFORMATION

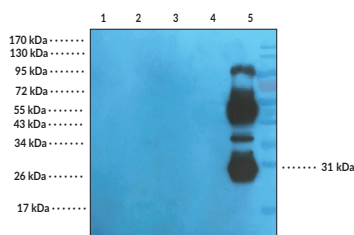


CD25/Interleukin-2R α Chimeric Monoclonal Antibody (Clone Daclizumab) Item No. 37169

Overview and Properties

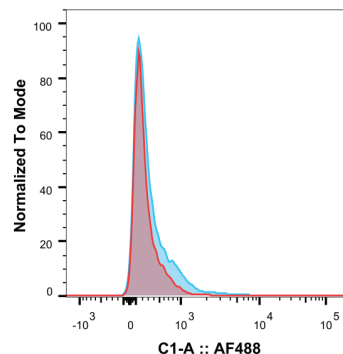
Contents:	This vial contains 200 μ g of protein A-affinity purified monoclonal antibody.
Synonyms:	Cluster of Differentiation 25, IL-2R α , Interleukin-2 Receptor Subunit α , TAC Antigen
Immunogen:	Recombinant human CD25/IL2R α
Cross Reactivity:	(+) CD25
Species Reactivity:	(+) Human, rhesus monkey, cynomolgus monkey
Uniprot No.:	P01589
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	\geq 1 year
Storage Buffer:	PBS with 0.02% ProClin™ 300
Clone:	Daclizumab
Host:	Chimeric Monoclonal Antibody
Isotype:	IgG1 κ
Applications:	Flow cytometry (FC) block; The optimal working concentration/dilution should be determined empirically.

Images

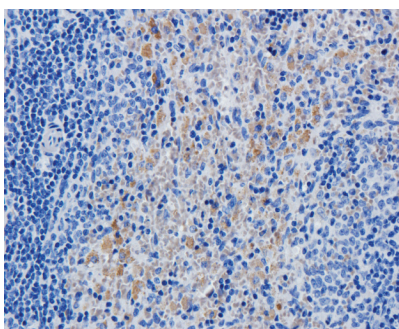


WB using CD25/Interleukin-2R α Chimeric Monoclonal Antibody (Clone Daclizumab). Samples were resolved on a 10% SDS-PAGE gel and blots probed with CD25/Interleukin-2R α Chimeric Monoclonal Antibody (Clone Daclizumab) at 1.5 μ g/ml before being detected by a secondary antibody.

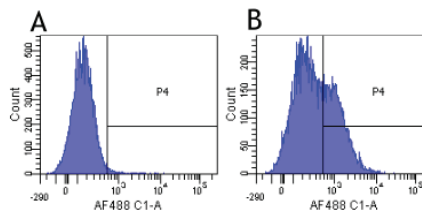
Lane 1: Mouse lipocyte (1.5 μ g/ml)



Flow cytometry using CD25/Interleukin-2R α Chimeric Monoclonal Antibody (Clone Daclizumab). Cynomolgus monkey lymphocytes were stained with isotype control or daclizumab at a concentration of 1 μ g/ml for 30 minutes at RT. After washing, bound antibody was detected using a AF488-conjugated donkey anti-rabbit antibody and cells analyzed on a FlowJo™ single-cell flow cytometer.



Immunohistochemical staining of formalin-fixed rat spleen using CD25/Interleukin-2R α Chimeric Monoclonal Antibody (Clone Daclizumab) at a dilution of 5 μ g/ml.



Flow cytometry using the CD25/Interleukin-2R α Chimeric Monoclonal Antibody (Clone Daclizumab). Human lymphocytes were stained with an isotype control or the rabbit-chimeric version of daclizumab at a concentration of 1 μ g/ml for 30 minutes at RT. After washing, bound antibody was detected using a AF488-conjugated donkey anti-rabbit antibody and cells were analyzed on a FACSCanto™ flow cytometer.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Description

CD25, also known as interleukin-2 receptor α (IL-2R α), is a transmembrane glycoprotein.¹ It is composed of two domains, D1 and D2, and associates with the CD122/IL-2 β and CD132/IL-2 γ c subunits to form the heterotrimeric IL-2 receptor. CD25 is expressed in activated T and B cells, regulatory T cells, and lymphokine-activated killer (LAK) cells.²⁻⁵ Activation of IL-2R on T cells increases the expression of CD25 and leads to T cell proliferation and differentiation, as well as activation-induced T cell death.^{3,5} *ILR2A* expression and CD25 protein levels in bone marrow are increased in patients with acute myeloid leukemia (AML) and associated with poor prognosis.³ SNPs in *ILR2A* and elevated serum levels of a soluble form of CD25 are associated with an increased risk of Graves' disease.⁴ Cayman's CD25/Interleukin-2R α Chimeric Monoclonal Antibody (Clone Daclizumab) was produced recombinantly from the original humanized antibody and can be used for flow cytometry (FC). The original antibody was generated by fusing human framework and constant domains to the antigen-binding domain of a mouse anti-CD25/IL2R α monoclonal antibody, which targets the ERIYHV peptide corresponding to amino acids 116 to 122 of human CD25.^{6,7}

References

1. Stauber, D.J., Debler, E.W., Horton, P.A., *et al.* Crystal structure of the IL-2 signaling complex: Paradigm for a heterotrimeric cytokine receptor. *Proc. Natl. Acad. Sci. USA* **103**(8), 2788-2793 (2006).
2. Volkó, J., Kenesei, Á., Zhang, M., *et al.* IL-2 receptors preassemble and signal in the ER/Golgi causing resistance to antiproliferative anti-IL-2R α therapies. *Proc. Natl. Acad. Sci. USA* **116**(42), 21120-21130 (2019).
3. Li, J., Ran, Q., Xu, B., *et al.* Role of CD25 expression on prognosis of acute myeloid leukemia: A literature review and meta-analysis. *PLoS One* **15**(7), e0236124 (2020).
4. Lee, H.J., Li, C.W., Hammerstad, S.S., *et al.* Immunogenetics of autoimmune thyroid diseases: A comprehensive review. *J. Autoimmun.* **64**, 82-90 (2015).
5. Waldmann, T.A. The IL-2/IL-2 receptor system: A target for rational immune intervention. *Immunol. Today* **14**(6), 264-270 (1993).
6. Queen, C., Schneider, W.P., Selick, H.E., *et al.* A humanized antibody that binds to the interleukin 2 receptor. *Proc. Natl. Acad. Sci. USA*. **86**(24), 10029-10033 (1989).
7. Binder, M., Vögtle, F.-N., Michelfelder, S., *et al.* Identification of their epitope reveals the structural basis for the mechanism of action of the immunosuppressive antibodies basiliximab and daclizumab. *Cancer Res.* **67**(8), 3518-3523 (2007).

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